



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

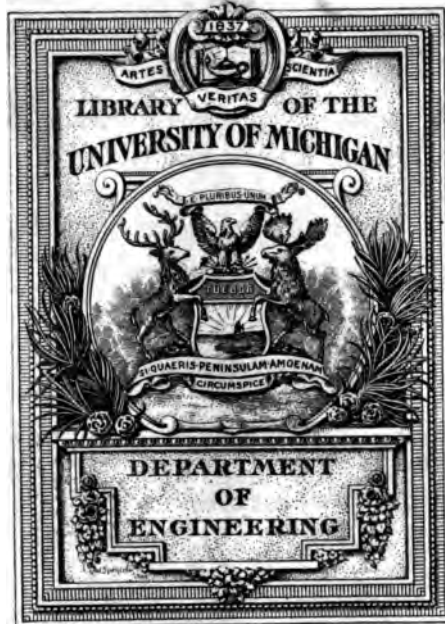
A 462117 DUPL

THE IRON AGE  
DIRECTORY

1904

# THE IRON AGE

*A Review of the Hardware, Iron, Machinery and  
Metal Trades*



9,

NI  
PH  
PI

1 St.  
th St.  
Ave.

CHICAGO, Fisher Building, Dearborn and Van Buren Sts.  
CINCINNATI, . . . . . Pickering Building, 5th and Main Sts.  
BOSTON, . . . . . Mason Building, 70 Kilby St.  
CLEVELAND, . . . . . The Cuyahoga, 311 Superior St.  
LONDON OFFICE, Hastings House, Norfolk St., Strand

# THE IRON AGE DIRECTORY

*A CLASSIFIED INDEX OF  
GOODS MANUFACTURED BY ADVERTISERS  
IN THE IRON AGE*

EIGHTH ANNUAL EDITION

*Price Twenty-five Cents*

One copy is sent free to each subscriber to  
THE IRON AGE

DAVID WILLIAMS COMPANY  
PUBLISHERS OF  
THE IRON AGE, THE METAL WORKER  
CARPENTRY AND BUILDING  
*New York, May, 1904.*



T  
12  
J.I.1

## ANNOUNCEMENT.

**I**N presenting to our subscribers the eighth annual edition of **THE IRON AGE DIRECTORY**, we take pleasure in calling attention to its increasing value. The contents of this edition are considerably greater than any yet issued. While the publication has been found useful in previous years, its scope is now so much larger that it cannot fail to be more highly appreciated as an essential part of the requirements of very many counting rooms.

For 49 years **THE IRON AGE** has been the recognized organ of the American Metal Trades and Industries, in whose development it has rendered important service. No other journal of its class has been so liberal and enterprising in securing and publishing information relative to the improvements and inventions which have distinguished the growth and progress of American industrial activity. Nor has any other publication in the metal trades given every week such careful and conscientious attention to the varying phases of the markets.

The reading columns have not constituted the sole feature of value to our subscribers, but the advertising columns have also furnished a highly appreciated means of communication between seller and buyer which has steadily gained in usefulness as the number and importance of the advertisements have increased and the circulation and influence of the paper have grown.

No trade journal in the world can compare with **THE IRON AGE** in the extent and value of the information given in its advertising columns, which contain announce-

ments of 1373 concerns making—as is shown in this book—over 5000 different tools, machines and products.

THE IRON AGE also stands unique in the extent and character of its subscribers. They comprise the greatest manufacturers in the iron, steel, machinery and hardware trades, the leading wholesale dealers in hardware and machinery, the purchasing agents of nearly every American railroad system of any importance, and retail hardware and metal dealers in every nook and corner of the United States. No other journal in the world has an equal clientage among the buyers in the trades which it represents. In a large proportion of the houses in its line, both large and small, no important purchase is made without reference to it. Its paid foreign circulation is also larger and of a higher character than that of many export journals, so that its advertising columns are found particularly useful to those who are seeking foreign outlets for their products.

The preparation of this book has involved much care and labor and no inconsiderable expense. A copy will be sent to each subscriber, in foreign countries as well as in America. We present it to them in the belief that it will deserve a place in every well organized office and will be found of constant use. Most of the puzzling questions continually arising in every mercantile and manufacturing establishment as to who makes some certain article may be readily answered by reference to THE IRON AGE DIRECTORY.

trical.)  
Boston, Mass.  
22 Day St., N. Y.  
etal—  
7-13 N. Canal St.,

# The Iron Age Directory

## Accumulators, Hydraulic—

Alliance Machine Co., Alliance, O.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Chas. F. Elmes Engineering Works, Cor.  
Morgan and Fulton Sts., Chicago, Ill.  
A. Garrison Foundry Co., Pittsburgh, Pa.  
Mesta Machine Co., Pittsburgh, Pa.  
Morgan Construction Co., Worcester, Mass.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Penn Engineering Works, New Castle, Pa.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
United Engineering & Foundry Co., Pittsburgh, Pa.

Waterbury Farrel Foundry & Mch. Co., Waterbury, Ct.

Watson-Stillman Co., 204-210 E. 43d St., New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

## MERCHANTS

Fairbanks Co., 416 Broome St., New York.  
Power Specialty Co., 126 Liberty St., New York.

Joseph T. Byerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

## Accumulators, Steam—

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Watson-Stillman Co., 204-210 E. 43d St., New York.

## Acid Phosphate—

Illinois Zinc Co., Peru, Ill.

## Acid, Sulphuric—

Dominion Iron & Steel Co., Ltd., Sydney, Nova Scotia, Canada.

Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

## Adjustable Blocking—

(See Blocking, Adjustable.)

## Adjusters, Blind—

Columbian Hardware Co., Cleveland, O.

Millers Falls Co., 28 Warren St., N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Wire Goods Co., Worcester, Mass.

## Adjusters, Casement—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

Earle Anvil Works, New York.

Hay-Budden Mfg. Works, Farmer, N. Y.

John C. Kupper Mfg. Works, Farmer, N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Wrightsville Hardware Works, Farmer, N. Y.

Pa. Window Stop—

New Haven, Ct.

151 Leonard St., N. Y.

## Advertising Novelties—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Fanner Mfg. Co., Cleveland, O.

## Advertising Writer—

Francis I. Maule, 402 Sansom St., Philadelphia, Pa.

## Adzes—

Findlay Axe & Tool Co., Findlay, O.

L. & I. J. White Co., Buffalo, N. Y.

## Adzes, Ice—

(See Ice Harvesting Tools.)

## Agents, Bicycle Material.

John S. Leng's Son & Co., 4 Fletcher St., New York.

## Agents, Bicycle Sundries—

John H. Graham & Co., 113 Chambers St., New York.

M. Hartley Co., 313 Broadway, N. Y.

John S. Leng's Son & Co., 4 Fletcher St., New York.

## Agents, Hardware and Kindred Goods—

Hermann Boker & Co., 101 Duane St., New York.

Burditt & Williams, Boston, Mass.

George B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

John Chatillon & Sons, 65 Cliff St., N. Y.

Dame, Stoddard & Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers St., New York.

M. Hartley Co., 313 Broadway, N. Y.

Livingston Nail Co., 104 Reade St., N. Y.

Charles Millar & Son Co., Utica, N. Y.

Shelby & Co., 66 Leonard St., London, E. C., England.

Henry A. Terry, 13 No. 6th St., Philadelphia, Pa.

Tower & Lyon Co., 95 Chambers St., New York.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

## Agricultural Bolts, Chains.

(See Bolts, Chains, Shapes.)

## Agricultural Implements—

E. R. Allen Foundry Co., Corning, N. Y.

Bateman Mfg. Co., Grenloch, N. J.

Cutaway Harrow Co., Higganum, Ct.

Kilborn & Bishop Co., New Haven, Ct.

Whitman & Barnes Mfg. Co., Akron, O.

## Agricultural Machinery—

Birmingham Iron Foundry, Derby, Ct.

Buffalo Forge Co., Buffalo, N. Y.

Cincinnati Punch & Shear Co., Cincinnati, O.

Ney Mfg. Co., Canton, O.

## Air Chambers, Seamless

Copper

Naugatuck Mfg. Co., Naugatuck, Ct.

## Air Gauges, Receivers.

Tanks—

(See Gauges, Receivers, Tanks.)

**Alarm Whistles—**

(See Whistles, Alarm.)

**Alarms, Electric, Burglar—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

W. K. Ostrander &amp; Co., 22 Dey St., N. Y. Sargent &amp; Co., 151 Leonard St., N. Y.

**Alarms, Fire Sprinkler—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Alarms, Low Water—**

Crane Co., Chicago, Ill.

Lunkenheimer Co., Cincinnati, O.

**Alloys, Nickel—**

Orford Copper Co., 45 Exchange Pl., N. Y.

**MERCHANTS**

Hermann Boker &amp; Co., 101-103 Duane St., New York.

**Altar Bells—**

(See Bells, Altar and Lodge.)

**Aluminum—**

Janney, Steinmetz &amp; Co., Drexel Bldg., Philadelphia, Pa.

Pittsburgh Reduction Co., Pittsburgh, Pa. Scovill Mfg. Co., Waterbury, Ct.

**Aluminum Bars, Castings, &c.**

(See Bars, Castings, &amp;c.)

**Aluminum, Perforated Sheet—**

Harrington &amp; King Perforating Co., 224 N. Union St., Chicago, Ill.

Chas. Mundt &amp; Sons, 41 Pearl St., N. Y.

**Amalgams—**

Bristol Co., Waterbury, Ct. General Electric Co., Schenectady, N. Y. Westinghouse Electric &amp; Mfg. Co., Pittsburgh, Pa.

**Ammonia Fittings—**

(See Fittings, Ammonia.)

**Ammonia, Sulphate of—**

Dominion Iron &amp; Steel Co., Sydney, Nova Scotia, Canada.

**Ammunition—**

(See Caps, Cartridges, Powder, Primers, Shells, Wads.)

**Ampere Recording Meters—**

(See Meters, Ampere Recording.)

**Anchor Bolts—**

(See Bolts, Anchor.)

**Anchors, Building—**

Wm. Bayley &amp; Sons Co., Milwaukee, Wis. Bethlehem Foundry &amp; Machine Co., South Bethlehem, Pa.

Blacklock Foundry, So. Pittsburgh, Tenn. Donovan Wire &amp; Iron Co., Toledo, O.

John C. Kupferle, St. Louis, Mo. M. Lanz &amp; Sons, Pittsburgh, Pa.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

**Anchors, Post—**

(See Telegraph and Telephone.)

**Anchors, Screw—**

New Jersey Foundry &amp; Machine Co., 9-15 Murray St., New York.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

**Anchors, Ship, Boat, &c.—**

National Steel Foundry Co., New Haven, Ct.

New Jersey Foundry &amp; Machine Co., 9-15 Murray St., New York.

W. &amp; J. Tiebout, 118 Chambers St., N. Y.

**Andirons—**

Blacklock Foundry, So. Pittsburgh, Tenn.

Murdoch Corporation, Boston, Mass.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Sargent &amp; Co., 151 Leonard St., N. Y.

R. W. Whitcomb Co., Norfolk, Va.

**Anemometers—**

Keuffel &amp; Esser Co., 127 Fulton St., New York.

B. F. Sturtevant Co., Boston, Mass.

**Angle Bars—**

Donovan Wire &amp; Iron Co., Toledo, O.

Logan Iron &amp; Steel Co., Burnham, Pa.

Republic Iron &amp; Steel Co., Chicago, Ill.

Wm. B. Scaife &amp; Sons Co., Pittsburgh, Pa.

**MERCHANTS**

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

Joseph T. Ryerson &amp; Son, 18-22 Milwaukee Ave., Chicago, Ill.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Angle Bore Bit Stock—**

(See Bit Stock, Angle Boring.)

**Angles and Tees—**

American Steel Hoop Co., Pittsburgh, Pa.

Donovan Wire &amp; Iron Co., Toledo, O.

Forest City Steel &amp; Iron Co., Cleveland, O.

Harrisburg Pipe &amp; Pipe Bending Co., Harrisburg, Pa.

Jones &amp; Laughlin Steel Co., Pittsburgh, Pa.

Lockhart Iron &amp; Steel Co., Pittsburgh, Pa.

Logan Iron &amp; Steel Co., Burnham, Pa.

Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron &amp; Steel Co., Chicago, Ill.

Wm. B. Scaife &amp; Sons Co., Pittsburgh, Pa.

**MERCHANTS**

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

John Eichleay, Jr. &amp; Co., Pittsburgh, Pa.

C. B. Houston &amp; Co., Girard Bldg., Philadelphia, Pa.

James Lee &amp; Co., 76 William St., N. Y.

Minneapolis Steel &amp; Machinery Co., Minneapolis, Minn.

Nazareth Foundry &amp; Machine Co., Nazareth, Pa.

Ogden &amp; Wallace, 577 Greenwich St., New York.

Pierson &amp; Co., 29 Broadway, New York.

Joseph T. Ryerson &amp; Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Angles and Tees, Galvanized—**

(See Galvanized Angles, Bars, &amp;c.)

**Animal Cages, Pokes, Tethers—**

(See Cages, Pokes, Tethers.)

**Annealing—**

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

I. S. Spencer's Sons, Guilford, Ct.

**Annunciator Wire—**

(See Wires, Electrical.)

**Annunciators—**

Holtzer-Cabot Electric Co., Boston, Mass.

W. R. Ostrander &amp; Co., Dey St., N. Y.

**Anti-Friction Mals—**

Chas. H. Boddy &amp; Co., 1 N. Canal St., Chicago, Ill.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.  
Cool Running Graphite Metal Co., Cincinnati, O.  
Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.  
Theo. Hiertz Metal Co., St. Louis, Mo.  
Magnolia Metal Co., 511 W. 13th St., New York.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Paul S. Reeves & Son, Philadelphia, Pa.  
W. G. Rowell & Co., Bridgeport, Conn.

**MERCHANTS.**

Dodge Mfg. Co., Mishawaka, Ind.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

**Antimony.**

American Metal Co., 52 Broadway, N. Y.  
Geo. C. Blackwell Sons & Co., The Albany, Liverpool, England.  
John Davol & Sons, 100 John St., N. Y.  
Hendricks Bros., 49 Cliff St., New York.  
Theo. Hiertz Metal Co., St. Louis, Mo.  
Merchant & Co., Inc., Philadelphia, Pa.  
Arthur T. Tutter & Co., 256 Broadway, New York.

J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.  
Waite, Ranlet & Co., Boston, Mass.

**Anti-Rattlers, Carriage or Thrill.**

F. E. Kohler & Co., Canton, O.  
Sabin Machine Co., Montpelier, Vt.

**Anti-Scale Preparations.**

Smooth On Mfg. Co., Jersey City, N. J.

**Anvils and Vise.**

Eagle Anvil Works, Trenton, N. J.  
National Fulton Brass Mfg. Co., Detroit, Mich.

J. E. Porter Co., Ottawa, Ill.

**Anvil, Drill and Vise.**

(See Vise, Drill and Anvil.)

**Anvils, Axe Makers.**

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

**Anvils, Bench.**

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Hollands Mfg. Co., Erie, Pa.

**Anvils, Blacksmiths.**

Columbian Hardware Co., Cleveland, O.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

**MERCHANTS.**

Hermann Boker & Co., 101 Duane St., New York.

Brown-Wales Co., Boston, Mass.

**Anvils, Chain Makers.**

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

**Anvils, Farmers' or Domestic.**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

John C. Kupperle, St. Louis, Mo.

Millers Falls Co., 28 Warren St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

**MERCHANTS.**

Hermann Boker & Co., 101 Duane St., New York.

**Anvils, Farriers.**

Columbian Hardware Co., Cleveland, O.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

**MERCHANTS.**

Hermann Boker & Co., 101 Duane St., New York.

Fairbanks Co., 416 Broome St., New York.

**Anvils, Jewelers.**

Billings & Spencer Co., Hartford, Ct.

**Anvils, Plow Makers.**

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

**Anvils, Saw.**

Henry Disston & Sons, Philadelphia, Pa.

**Anvils, Saw Makers.**

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

**Anvils, Tool Makers.**

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

**Apple Corers and Parers.**

(See Parers, Apple.)

**Appraisers, Machinery.**

Factory Exchange, Boston, Mass.

Henry F. Hill, Boston, Mass.

McGeorge & Sons, Cleveland, O.

**Appraisers, Real Estate.**

Factory Exchange, Boston, Mass.

**Apron Carriers, Endless.**

(See Carriers, Apron.)

**Aprons, Cotton and Wool.**

Clinton Wire Cloth Co., Clinton, Mass.

**Aprons, Leather.**

Livingston Nail Co., 104 Read St., N. Y.

**Arbors.**

(See Mandrels.)

**Arbors, Circular Saw.**

E. C. Atkins & Co., Indianapolis, Ind.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Henry Disston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Wickes Bros., Saginaw, Mich.

**Arbors for Drill Chucks.**

R. H. Brown & Co., New Haven, Ct.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Standard Tool Co., Cleveland, O.

Union Mfg. Co., New Britain, Ct.

**Arbors for Shell Reamers.**

Cincinnati Screw & Tap Co., Cincinnati, O.

Cleveland Twist Drill Co., Cleveland, O.

Etna Mfg. Co., 233 Broadway, New York.

Morse Twist Drill & Mch. Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

Standard Tool Co., Cleveland, O.

**Arches, Curved Corrugated.**

Garry Iron & Steel Co., Cleveland, O.

McCullough Iron Co., Wilmington, Del.

Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Youngstown Iron & Steel Rolling Co., Youngstown, O.

**Architects and Builders.****Horticultural—**  
Lord & Burnham Co., Irvington-on-Hudson, N. Y.**Architectural Iron Work—**  
(See Structural Material.)**Architectural Sheet Metal Work—**

E. B. Badger &amp; Sons Co., Boston, Mass.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Chattanooga Roofing &amp; Foundry Co., Chattanooga, Tenn.

Clason Architectural Metal Co., Providence, R. I.

J. B. &amp; J. M. Cornell, 26th St. and 11th Ave., New York.

G. Drouve Co., Bridgeport, Ct.

Edwards Mfg. Co., Cincinnati, O.

Garry Iron &amp; Steel Co., Cleveland, O.

National Sheet Metal Roofing Co., Jersey City, N. J.

**Arc Lamps—**

(See Lamps, Arc.)

**Armature Binding Wire—**

(See Wires Electrical.)

**Armature Disc Notching Machines—**

(See Notching Machines, Armature Disc.)

**Armature Discs—**

(See Discs, Armature.)

**Armature Sheets**

American Sheet &amp; Tin Plate Co., Pittsburgh, Pa.

**MERCHANTS.**

Bourne-Fuller Co., Cleveland, O.

Joseph T. Ryerson &amp; Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Armature Winding—**

Van Dorn &amp; Dutton Co., Cleveland, O.

**Armored Wire—**

(See Wires, Electrical.)

**Arms, Cable—**

(See Telegraph and Telephone Pole Supplies.)

**Army and Navy Scales—**

(See Scales, Army and Navy.)

**Arresters, Lightning—**

General Electric Co., Schenectady, N. Y.

Westinghouse Electric &amp; Mfg. Co., Pittsburgh, Pa.

**Arresters, Spark—**

Byram &amp; Co., Detroit, Mich.

Harrington &amp; King Perforating Co., 224 N. Union St., Chicago, Ill.

Fred. J. Meyers Mfg. Co., Hamilton, O.

Charles Mundt &amp; Sons, 441-447 Pearl St., New York.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

**Artesian Well Pumps—**

(See Pumps, Artesian Well.)

**Artesian Well Supplies and Tools—**

(See Well Supplies and Tools.)

**Artists' Materials—**

Devoe &amp; Reynolds Co., 176 Randolph St., Chicago, Ill.

**Art Metal Work—**

Edwards Mfg. Co., Cincinnati, O.

Yale &amp; Towne Mfg. Co., 9-13 Murray St., New York.

**Asbestos—**

American Asbestos Co., Terre Haute, Ind.

**Ash Cans, Sieves, Sifters—**

(See Cans, Sieves, Sifters.)

**Ash Pan Ears—**

(See Ears, Ash Pan and Kettle.)

**Asphalt, Refracted—**

Asphalt Ready Roofing Co., 136 Water St., New York.

Stowell Mfg. Co., Jersey City, N. J.

**Asphalt Roofing—**

(See Roofing, Asphalt.)

**Asphaltum—**

Gulf Refining Co., Pittsburgh, Pa.

**Asphaltum Oil—**

(See Oil, Asphaltum.)

**Assay Apparatus, Portable—**

White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**Assembling Machines, Bicycle Wheel—**

Pratt &amp; Whitney Co., Hartford, Ct.

**Attachments, Pipe Wrench—**

(See Wrench Attachments, Pipe.)

**Attachments, Sash Cord and Ribbon—**

(See Irons, Sash Cord and Ribbon.)

**Auctioneers—**

E. Bissell &amp; Co., 12 Murray St., N. Y.

**Auger Handles—**

(See Handles, Auger.)

**Augers and Bits, Brace, Boring Machine, &c.—**

Connecticut Valley Mfg. Co., Centerbrook, Ct.

Ford Auger Bit Co., Holyoke, Mass.

Forest City Bit &amp; Tool Co., Rockford, Ill.

John H. Graham &amp; Co., 113 Chambers St., New York.

O. E. Jennings Co., 42 Murray St., N. Y.

Russell Jennings Mfg. Co., Deep River, Ct.

Kilborn &amp; Bishop Co., New Haven, Ct.

Ohio Tool Co., Columbus, O.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Job T. Pugh, Philadelphia, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Snell Mfg. Co., Fiskdale, Mass.

Tower &amp; Lyon Co., 95 Chambers St., New York.

**Augers, Dried Fruit and Sugar—**

Enterprise Mfg. Co., Philadelphia, Pa.

**Augers, Hollow—**

Millers Falls Co., 83 Warren St., N. Y.

Silver Mfg. Co., Salem, O.

**Augers, Ice—**

(See Ice Harvesting Tools.)

**Augers, Post Hole—**

Iwan Bros., Streator, Ill.

J. E. Porter Co., Ottawa, Ill.

(See also Diggers, Post Hole.)

**Autographic Cash Recorders—**

(See Recorders, Cash, Autographic.)

**Automobile Gas Generators—**

(See Burners and Gas Generators, Automobile.)

**Automobile Hubs—**

(See Hubs, Wire Wheels, Vehicle.)

**Automobile Parts—**

Acme Steel &amp; Malleable Iron Works, Buffalo, N. Y.

Billings &amp; Spencer Co., Hartford, Ct.

Boston Gear Works, Boston, Mass.

Crosby Co., Buffalo, N. Y.

Federal Mfg. Co., Cleveland, O.

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.  
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Mason Regulator Co., Boston, Mass.  
 Reading Machine & Tool Co., Reading, Pa.  
 Strieby & Foote Co., Newark, N. J.  
 Turner Brass Works, 44 No. Franklin St., Chicago, Ill.  
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.  
 Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

**Automobile Running Gear with Motive Power—**  
 Federal Mfg. Co., Cleveland, O.

**Automobiles—**  
 Boston Gear Works, Boston, Mass.  
 H. H. Franklin Mfg. Co., Syracuse, N. Y.  
 National Sewing Machine Co., Belvidere, Ill.

Pope Robinson Co., Hyde Park, Mass.  
 J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Awl Handles—**  
 (See Handles, Chisel, File, Awl, &c.)

**Awls, Carpet—**  
 Hurwood Mfg. Co., Bridgeport, Ct.

**Awls, Folding—**  
 Hurwood Mfg. Co., Bridgeport, Ct.

**Awls, Ice—**  
 (See Picks and Awls, Ice.)

**Awls, Pea Brad, &c.—**  
 H. H. Mayhew Co., Shelburne Falls, Mass.

New England Specialty Co., North Easton, Mass.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

**Awls, Scratch, Belt, &c.—**  
 Bemis & Call Hardware & Tool Co., Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Charles Buck, Millbury, Mass.

Buck Bros., Millbury, Mass.

Dame, Stoddard & Co., Boston, Mass.

Hurwood Mfg. Co., Bridgeport, Ct.

H. H. Mayhew Co., Shelburne Falls, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Springfield Machine Screw Co., Springfield, Mass.

Tuck Mfg. Co., Brockton, Mass.

**Awls, Thong—**  
 Hurwood Mfg. Co., Bridgeport, Ct.

**Awls, Tinnerns—**  
 Hurwood Mfg. Co., Bridgeport, Ct.

**Awning Hardware—**  
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Awning Hinges, Hooks, Pullies—**  
 (See Hinges, Hooks, Pullies.)

**Awnings—**

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

George B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Forest City Steel & Iron Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Stewart Iron Works, Cincinnati, O.

**Awnings, Combination Window and Screen—**

Phenix Mfg. Co., Milwaukee, Wis.

**Awnings, Hammock—**

I. E. Palmer, Middletown, Ct.

**Axe Brackets, Racks, Stones—**  
 (See Brackets, Racks, Stones.)

**Axe Factory Machinery—**  
 J. H. Lingle, Bellefonte, Pa.

**Axes, Chopping—**  
 Findlay Axe & Tool Co., Findlay, O.

L. & I. J. White Co., Buffalo, N. Y.

**Axes, Fireman's—**  
 L. & I. J. White Co., Buffalo, N. Y.

**Axes, Ice—**  
 Branchville Ice Tool Works, Branchville, Ct.

Findlay Axe & Tool Co., Findlay, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

L. & I. J. White Co., Buffalo, N. Y.

Wm. T. Wood & Co., Arlington, Mass.

**Axe Clips, Cutters, Grease, &c.—**  
 (See Clips, Cutters, Grease, &c.)

**Axe Iron—**  
 (See Iron, Axe.)

**Axes and Wheels—**  
 Atlas Car & Mfg. Co., Cleveland, O.

Thomas Carlin's Sons Co., Allegheny, Pa.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Nazareth Foundry & Machine Co., Nazareth, Pa.

**Axes, Automobile—**  
 Billings & Spencer Co., Hartford, Ct.

Case Mfg. Co., Columbus, O.

Federal Mfg. Co., Cleveland, O.

Hyatt Roller Bearing Co., Harrison, N. J.

**Axes, Ball Bearing, Carriage—**  
 Pressed Steel Mfg. Co., Ridge Ave. and Willow St., Philadelphia, Pa.

**Axes, Car—**  
 Atlas Car & Mfg. Co., Cleveland, O.

Thomas Carlin's Sons Co., Allegheny, Pa.

Cleveland City Forge & Iron Co., Cleveland, O.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Otis Steel Co., Limited, Cleveland, O.

Republic Iron & Steel Co., Chicago, Ill.

Sheffield Car Co., Three Rivers, Mich.

Tindel-Morris Co., Edestone, Pa.

Titusville Forge Co., Titusville, Pa.

MERCHANTS

Apex Equipment Co., 11 Broadway, N. Y.

Bourne-Fuller Co., Cleveland, O.

Arthur Koppel, 66 Broad St., New York.

Pierson & Co., 23 Broadway, New York.

Wm. H. Wallace & Co., 23 Broadway, New York.



- Axle Straightening Presses—**  
(See Straightening Presses, Axle.)
- Axles, Wagon and Carriage—**  
F. W. Wurster & Co., Brooklyn, N. Y.
- Babbitt Metal—**  
American Valve & Meter Co., Cincinnati, O.
- Chas. H. Besly & Co., 10-12 N. Canal St., Chicago, Ill.
- Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
- Empire Metal Co., Syracuse, N. Y.
- Theo. Hertz Metal Co., St. Louis, Mo.
- A. Leschen & Sons Rope Co., St. Louis, Mo.
- Magnolia Metal Co., 511 W. 13th St., New York.
- Merchant & Co., Philadelphia, Pa.
- New Era Mfg. Co., Kalamazoo, Mich.
- Paul S. Reeves & Son, Philadelphia, Pa.
- W. G. Rowell & Co., Bridgeport, Ct.
- Walter A. Zelnicker Supply Co., St. Louis, Mo.
- Back Saws—**  
(See Saws, Hand, Panel, Back, &c.)
- Badges and Medals—**  
American Railway Supply Co., 24 Park Place, New York
- Schwerdtle Stamp Co., Bridgeport, Ct.
- R. Woodman Mfg. & Supply Co., Boston.
- Bag Fillers, Locks—**  
(See Fillers, Locks.)
- Baggage Checks—**  
(See Checks, Baggage, Keys, &c.)
- Bags, Automobile Tool—**  
Federal Mfg. Co., Cleveland, O.
- Bags, Bicycle Tool—**  
Federal Mfg. Co., Cleveland, O.
- Bags, Gam—**  
Waterbury Brass Co., Waterbury, Ct.
- Bags, School—**  
I. E. Palmer, Middletown, Ct.
- Balls, Kettle, Oil Stove, &c.—**  
Fanner Mfg. Co., Cleveland, O.
- Ball Trolling—**  
Clark, Horrocks Co., Utica, N. Y.
- Andrew B. Hendryx Co., New Haven, Ct.
- Bakers' and Confectioners' Tools, Machines, &c.**  
(Ovens, Yeast Buckets, Pie Racks, Scrapers, Basins, Cake Pans, Cake Cutters, Sieves, &c.)
- Barbour-Stockwell Co., Cambridgeport, Mass.
- Fedders Mfg. Co., Buffalo, N. Y.
- Baking Pans—**  
(See Pans, Baking and Roasting.)
- Balances and Scales, Assay—**  
Elmer & Amend, 205 Third Ave., N. Y.
- Fairbanks Co., 416 Broome St., New York.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Balances, Sash—**  
Caldwell Sash Balance Co., Rochester, N. Y.
- Pullman Mfg. Co., Rochester, N. Y.
- Balances, Spring—**  
Bridgeport Brass Co., Bridgeport, Ct.
- John Chatillon & Sons, 85 Cliff St., N. Y.
- Fairbanks Co., 416 Broome St., New York.
- Leaders, Fry & Clark, New Britain, Ct.*
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Sargent & Co., 151 Leonard St., N. Y.
- Balconies—**  
(See Iron Work, Builders', &c.)
- Bale Ties—**  
(See Ties.)
- Baling Wire—**  
(See Wire, Baling.)
- Ball Bearing Cups and Cones—**  
(See Cups and Cones, Ball Bearing.)
- Ball Cocks—**  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.
- Ball Floats, Copper—**  
(See Floats, Copper Ball.)
- Ball Joints—**  
(See Joints, Universal.)
- Balling Irons—**  
(See Irons, Baling.)
- Ballots, Society—**  
H. O. Canfield, Bridgeport, Ct.
- Balls, Aluminum—**  
Federal Mfg. Co., Cleveland, O.
- Balls and Pins, Ten Pin—**  
Boston & Lockport Block Co., Boston, Mass.
- E. B. Estes & Sons, 45-47 John St., N. Y.
- John Sommer's Son, Newark, N. J.
- Balls, Brass—**  
Federal Mfg. Co., Cleveland, O.
- Balls for Grinding Machines—**  
Strichy & Foote Co., Newark, N. J.
- Balls, Failer Rubber—**  
H. O. Canfield, Bridgeport, Ct.
- Whitman & Barnes Mfg. Co., Akron, O.
- Balls, German Silver—**  
Federal Mfg. Co., Cleveland, O.
- Balls, Golf—**  
Federal Mfg. Co., Cleveland, O.
- Balls, Half, Copper and Zinc—**  
Edwards Mfg. Co., Cincinnati, O.
- Balls, Malleable Iron—**  
Federal Mfg. Co., Cleveland, O.
- Balls, Ox—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Reading Hardware Co., Reading, Pa.
- Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Sargent & Co., 151 Leonard St., N. Y.
- Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
- Balls, Steel—**  
American Ball Co., Providence, R. I.
- Ball Bearing Co., 2322 Market St., Philadelphia, Pa.
- Federal Mfg. Co., Cleveland, O.
- Band Chimes—**  
(See Chimes, Church and Band.)
- Band Cutter and Nail Puller—**  
(See Nail Puller and Band Cutter.)
- Bandring, Spindle—**  
Emerson F. Turner Mfg. Co., Norwich, Ct.
- Band Iron—**  
(See Hoops and Bands.)
- Band Saws—**  
(See Saws, Band.)
- Band Saws for Metal—**  
(See Saws, Band, for Metals.)
- Band Saw, Steel—**  
(See Steel, Band Saw.)

- Bands, Gaff, Boom and Mast—**  
W. & J. Tiebout, 118 Chambers St., N. Y.
- Bands, Hose—**  
(See Hose Attachments.)
- Bands, Neck Yoke—**  
Wrought Washer Mfg. Co., Milwaukee, Wis.
- Bands, Rubber—**  
Whitman & Barnes Mfg. Co., Akron, O.
- Bands, Shingle—**  
Walter A. Zelnicker Supply Co., St. Louis, Mo.
- Bands, Vehicle, Hub, Sand and Mud—**  
Logan Iron & Steel Co., Burnham, Pa.  
Standard Welding Co., Cleveland, O.  
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
- Bank Fixtures and Furniture—**  
Glen Mfg. Co., Ellwood City, Pa.
- Banquet Lamps—**  
(See Lamps, Table, Banquet, &c.)
- Barbers' Shears—**  
(See Shears, Barbers'.)
- Barbing Machines, Wire—**  
Henry Perkins Co., Bridgewater, Mass.
- MERCHANTS—**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Barbing Machines, Wire Nail—**  
H. J. Miller's Sons, Bridgewater, Mass.
- Barb Wire—**  
(See Wire, Barb.)
- Barb Wire Carriers—**  
(See Carriers, Barb Wire.)
- Barges and Hulls, Steel—**  
American Bridge Co., 100 Broadway, N. Y.  
Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.  
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.
- Barn Door Bolts—**  
(See Bolts, Barn Door.)
- Barometers—**  
Keuffel & Esser Co., 127 Fulton St., New York.
- Barrel Covers, Drainers, Elevators, &c.—**  
(See Covers, Drainers, Elevators, &c.)
- Barrel Machinery and Tools—**  
Peter Gerlach Co., Cleveland, O.  
Humphrey Machine Co., Keen, N. H.
- Barrels and Half Barrels, Steel—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.  
W. J. Clark Co., Salem, O.  
Cleveland Wire Spring Co., Cleveland, O.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Barrels, Galvanized Water—**  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Barrels, Oil Well, &c., Seamless Steel—**  
Barnes Mfg. Co., Mansfield, Ohio.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Barrels, Rifle—**  
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Barrels, Tack—**  
E. B. Estes & Sons, 45-47 John St., N. Y.
- Barrels, Tumbling—**  
Baird Machine Co., Oakville, Ct.  
Byram & Co., (Inc.), Detroit, Mich.  
Globe Machine & Stamping Co., Cleveland, O.  
Henderson Bros., Waterbury, Ct.  
H. J. Miller's Sons, Bridgewater, Mass.  
Northern Engineering Works, Detroit, Mich.  
S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.  
Henry Perkins Co., Bridgewater, Mass.  
Roversford Foundry & Machine Co., Roversford, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
Sheffield Car Co., Three Rivers, Mich.  
South Pittsburgh Iron Works, Clayville, Pa.  
Stover Mfg. Co., Freeport, Ill.  
Tudor Boiler Mfg. Co., Cincinnati, O.  
Waterbury Machine Co., Waterbury, Ct.  
Whiting Foundry Equipment Co., Harvey, Ill.
- Barrows, Hand—**  
W. J. Clark Co., Salem, O.  
Cleveland Wire Spring Co., Cleveland, O.
- Barrows, Toy—**  
(See Toy Barrows.)
- Barrows, Wheel, Ash, Coal, Coke, Charcoal, &c.—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.  
F. H. Evans, Brooklyn, N. Y.  
Fairbanks Co., 416 Broome St., New York.  
C. W. Hunt Co., West New Brighton, N. Y.  
Jackson Mfg. Co., Harrisburg, Pa.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
Meehan Boller & Construction Co., Lowellville, O.  
Osborn Mfg. Co., Cleveland, O.  
J. W. Paxson Co., Philadelphia, Pa.  
J. D. Smith Foundry Supply Co., Cleveland, O.  
Syracuse Chilled Plow Co., Syracuse, N. Y.  
Withington & Cooley Mfg. Co., Jackson, Mich.
- Barrows, Wheel, Baggage—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Boston & Lockport Block Co., Boston, Mass.  
Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.  
Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Barrows, Wheel, Brick—**  
American Fork & Hoe Co., Cleveland, O.  
Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.  
Fairbanks Co., 416 Broome St., New York.  
Jackson Mfg. Co., Harrisburg, Pa.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Canal or Railroad—**

American Fork & Hoe Co., Cleveland, O.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

J. D. Smith Foundry Supply Co., Cleveland, O.  
 Syracuse Chilled Plow Co., Syracuse, N. Y.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Canning Factory—**

Boston & Lockport Block Co., Boston, Mass.  
 Fairbanks Co., 416 Broome St., New York.

**Barrows, Wheel, Charging and Ore—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 C. W. Hunt Co., West New Brighton, N. Y.

Jackson Mfg. Co., Harrisburg, Pa.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.  
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Osborn Mfg. Co., Cleveland, O.  
 J. W. Paxson Co., Philadelphia, Pa.  
 J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Dirt—**

American Fork & Hoe Co., Cleveland, O.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Osborn Mfg. Co., Cleveland, O.  
 J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Garden—**

Atlas Car & Mfg. Co., Cleveland, O.  
 A. Buch's Sons Co., Elizabethtown, Pa.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, General Purpose—**

American Fork & Hoe Co., Cleveland, O.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Osborn Mfg. Co., Cleveland, O.  
 J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Mining—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Jackson Mfg. Co., Harrisburg, Pa.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Osborn Mfg. Co., Cleveland, O.  
 J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Mortar—**

American Fork & Hoe Co., Cleveland, O.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Oyster—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Barrows, Wheel, Packing-house—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Boston & Lockport Block Co., Boston, Mass.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 C. W. Hunt Co., West New Brighton, N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Barrows, Wheel, Salt—**

American Fork & Hoe Co., Cleveland, O.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

J. D. Smith Foundry Supply Co., Cleveland, O.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Stable or Sawdust—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Stave—**  
American Fork & Hoe Co., Cleveland, O.  
Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Stone—**  
American Fork & Hoe Co., Cleveland, O.  
Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Barrows, Wheel, Tile—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

**Barrows, Wheel, Wharf or Phosphate—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

**Barrow Wheels—**  
(See Wheels, Barrow.)

**Bars, Aluminum—**  
Pittsburgh Reduction Co., Pittsburgh, Pa.

**Bars and Segments, Commutator—**  
Ansonia Brass & Copper Co., 99 John St., New York.

Billings & Spencer Co., Hartford, Ct.  
Keystone Drop Forge Works, Chester, Pa.

**Bars, Bicycle Handle—**  
Ames Sword Co., Chicopee, Mass.  
Dangler Stove & Mfg. Div., Ames Stove Co., Cleveland, O.

Federal Mfg. Co., Cleveland, O.  
Reading Standard Cycle Mfg. Co., Reading, Pa.

**Bars, Copper—**  
(See Copper.)

**Bars, Crow—**  
New Castle Forge & Bolt Co., New Castle, Pa.

**Bars, Eye—**  
Passaic Steel Co., Paterson, N. J.  
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

**Bars, Grate—**  
(See Grate Bars.)

**Bars, Ice—**  
L. & I. J. White Co., Buffalo, N. Y.

Wm. T. Wood & Co., Arlington, Mass.

**Bars, Iron—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

American Steel Hoop Co., Pittsburgh, Pa.  
Bethlehem Steel Co., So. Bethlehem, Pa.

Burden Iron Co., Troy, N. Y.  
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Lockhart Iron & Steel Co., Pittsburgh, Pa.  
Logan Iron & Steel Co., Burnham, Pa.

Milton Mfg. Co., Milton, Pa.  
Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.  
Republic Iron & Steel Co., Chicago, Ill.

Union Rail Co., Huntington, W. Va.  
Virginia Iron, Coal & Coke Co., Bristol, Va.

F. W. Wurster & Co., Brooklyn, N. Y.  
Zug & Co., Ltd., Pittsburgh, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.

Brown-Wailes Co., Boston, Mass.  
Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Denman & Davis, 85-87 John St., N. Y.  
Walter Graham, Harrison Bldg., Philadelphia, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.  
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.  
Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

E. B. Leaf & Co., Real Estate Trust Bldg., Philadelphia, Pa.  
N. Lillienberg, Betz Bldg., Philadelphia, Pa.

John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.  
Pierson & Co., 29 Broadway, New York.

Horace T. Potts & Co., 316-320 N. 3d St., Philadelphia, Pa.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Charles G. Shepard, Buffalo, N. Y.  
Union Rail Co., Huntington, W. Va.

Wm. H. Wallace & Co., 66 Broadway, New York.  
Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Bars, Iron, Galvanized—**  
(See Galvanized Angles, Bars, &c.)

**Bars, Locomotive Cylinder Boring—**  
(See Boring Bars, Locomotive Cylinder.)

**Bars, Muck—**  
American Steel Hoop Co., Pittsburgh, Pa.  
Bethlehem Steel Co., So. Bethlehem, Pa.

Republic Iron & Steel Co., Chicago, Ill.  
Youngstown Iron Sheet & Tube Co., Youngstown, O.

**MERCHANTS.**  
Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.

Jerome Keeley & Co., 211 Chestnut St., Philadelphia, Pa.

J. Tatnall Lea & Co., 19 S. 12th St., Philadelphia, Pa.

E. B. Leaf & Co. Real Estate Trust Bldg., Philadelphia, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia, Pa.

F. E. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Frank Samuel, 15th & Market Sts., Philadelphia, Pa.

W. P. Snyder & Co., Pittsburgh, Pa.

Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.

E. H. Wilson & Co., 112 N. Broad St., Philadelphia, Pa.

**Bars, Open Hearth Sheet—**

Allegheny Steel & Iron Co., Pittsburgh, Pa.

**Bars, Open Hearth Tin—**

Allegheny Steel & Iron Co., Pittsburgh, Pa.

**Bars, Sash, Metal Covered—**

Glen Mfg. Co. Ellwood City, Pa.

**Bars, Sheet—**

La Belle Iron Works, Steubenville, O.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

#### MERCHANTS.

Cabene & Co. Real Estate Trust Bldg., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

W. P. Snyder & Co., Pittsburgh, Pa.

**Bars, Shutter—**

H. B. Ives Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Bars, Spring Steel—**

Harrow Spring Co., Kalamazoo, Mich.

**Bars, Steel—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

American Steel Hoop Co., Pittsburgh, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Braeburn Steel Co., Braeburn, Pa.

Henry Disston & Sons, Philadelphia, Pa.

Forest City Steel & Iron Co., Cleveland, O.

Harrow Spring Co., Kalamazoo, Mich.

Wm. Jessop & Sons, Ltd., 91 John St., New York.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Le Belle Iron Works, Steubenville, O.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Logan Iron & Steel Co., Burnham, Pa.

C. Pardee Works, Perth Amboy, N. J.

Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Abel Rollason & Sons, Birmingham, Eng.

Union Rail Co., Huntington, W. Va.

Vulcan Crucible Steel Co., Aliquippa, Pa.

#### MERCHANTS.

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

Brown-Walke Co., Boston, Mass.

Cabene & Co. Real Estate Trust Bldg., Philadelphia, Pa.

Justice Cox, Jr., & Co., Ltd., Bullitt Bldg., Philadelphia, Pa.

Denman & Davis, 85 John St., N. Y.

J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

E. B. Leaf & Co. Real Estate Trust Bldg., Philadelphia, Pa.

James Lee & Co., 76 William St., N. Y.

N. Allenberg, Betz Bldg., Philadelphia, Pa.

John B. Newkirk & Co., 15th & Market Sts., Philadelphia, Pa.

Ogden & Wallace, 577 Greenwich St., New York.

F. B. Phillips & Sons Co., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Horace T. Potts & Co., 316-320 N. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Charles G. Shepard, Buffalo, N. Y.

W. L. Snyder & Co., Pittsburgh, Pa.

W. H. Wallace & Co., 66 Broadway, N. Y.

Mason G. Worth & Co. Real Estate Trust Bldg., Philadelphia, Pa.

**Base Knobs—**

(See Knobs, Base.)

**Bases, Garment Stand—**

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Bases, Post—**

(See Caps and Bases.)

**Bases, Vertical Boiler—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Basin and Bath Supplies—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Randolph-Cloves Co., Waterbury, Ct.

**Basin Plugs—**

(See Plumbing Supplies.)

**Basins, Catch—**

Wm. Bayley & Sons Co., Milwaukee, Wis.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Basins, Wash—**

Rome Mfg. Co., Rome, N. Y.

**Basket Handles, Wire—**

(See Handles, Basket, Wire.)

**Baskets, Bread or Cake, Silver and Nickel Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

New York Stamping Co., Brooklyn, N. Y.

**Baskets, Card—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Baskets, Counter Display—**

Wire Goods Co., Worcester, Mass.

**Baskets, Fish—**

Buffalo Wire Works Co., Buffalo, N. Y.

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Baskets, Fishing—**

Clark, Horrocks Co., Utica, N. Y.

**Baskets, Hanging—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Baskets, Letter—**

Parker Wire Goods Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Baskets, Soap—**

(See Household Articles.)

**Baskets, Sponge, &c.—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
Estey Wire Works Co., 59 Fulton St., New York.  
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.  
Fred. J. Meyers Mfg. Co., Hamilton, O.  
Parker Wire Goods Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.

**Baskets, Waste—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
Estey Wire Works Co., 59 Fulton St., New York.  
Parker Wire Goods Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Baskets, Wire—**

Howard & More, 45 Fulton St., N. Y.

**Baskets, Wire Display—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Basket Trucks—**

(See Trucks, Basket.)

**Bathroom and Toilet Specialties—**

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
Crane Co., Chicago, Ill.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Parker Wire Goods Co., Worcester, Mass.  
Taplin Mfg. Co., New Britain, Ct.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Baths, Plunge, Sitz, &c.—**

Sturges & Burn Mfg. Co., Chicago, Ill.

**Bathtubs—**

Humphreys Mfg. Co., Mansfield, O.  
Sidney Shepard & Co., Buffalo, N. Y.

**Bath Wastes—**

(See Overflow and Wastes, Bath.)

**Bats, Bat—**

E. B. Estes & Sons, 45-47 John St., N. Y.

**Batteries, Electric—**

Helios-Upton Co., Peabody, Mass.  
King Powder Co., Cincinnati, O.  
W. K. Ostrander & Co., 22 Dey St., N. Y.

**Battery Plates, Rolled Zinc—**

Matthiessen & Hegeler Zinc Co., La Salle, Ill.  
E. Phillips & Son, So. Hanover, Mass.

**Battery Zincs—**

(See Zincs for Leclanche Batteries.)

**Benders, Hand—**

Niagara Machine & Tool Works, Buffalo, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Stanley Rule & Level Co., New Britain, Ct.

**Benders, Sheet Metal—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Niagara Machine & Tool Co., Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Beads, Corner—**

Youngstown Iron & Steel Roofing Co., Youngstown, O.

**Beam Hooks, Shear—**

(See Hooks, Shears.)

**Beams and Channels—**

American Steel Hoop Co., Pittsburgh, Pa.  
Donovan Wire & Iron Co., Toledo, O.  
Forest City Steel & Iron Co., Cleveland, O.  
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.  
Mathew Lanz & Sons, Pittsburgh, Pa.  
Passaic Steel Co., Paterson, N. J.  
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.  
Republic Iron & Steel Co., Stock Exchange Bldg., Chicago, Ill.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
John Eichleay, Jr., Co., Pittsburgh, Pa.  
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
James Lee & Co., 76 William St., N. Y.  
Minneapolis Steel & Machine Co., Minneapolis, Minn.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
Pierson & Co., 29 Broadway, New York.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
Wm. H. Wallace & Co., 66 Broadway, New York.

**Beams and Channels, Galvanized—**

(See Galvanized Angles, Bars, &c.)

**Beams, Scale—**

(See Scale Beams.)

**Bearing Metal—**

Magnolia Metal Co., 511 W. 13th St., New York.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

**Bearings, Ball—**

American Ball Co., Providence, R. I.  
Ball Bearing Co., 2322 Market St., Philadelphia, Pa.

Bantam Mfg. Co., Bantam, Ct.  
Johnston & Sharp Mfg. Co., Ottumwa, Ia.

New Britain Hardware Mfg. Co., New Britain, Ct.

Pressed Steel Mfg. Co., Ridge Ave. and Willow St., Philadelphia, Pa.

Standard Machinery Co., Providence, R. I.  
Wilcox Mfg. Co., Aurora, Ill.

**Bearings, Ball and Roller Thrust—**

American Ball Co., Providence, R. I.  
Ball Bearing Co., 2322 Market St., Philadelphia, Pa.

Bantam Mfg. Co., Bantam, Ct.  
Hyatt Roller Bearing Co., Harrison, N. J.

Standard Machinery Co., Providence, R. I.

**Bearings, Car and Locomotive—**

Paul S. Reeves & Son, Philadelphia, Pa.  
Hyatt Roller Bearing Co., Harrison, N. J.

**Bearings, Lead Lined—**

Bridgeport Oxidized Bronze & Metal Co., Bridgeport, Ct.

Paul S. Reeves & Son, Philadelphia, Pa.

**Bearings, Oilless Shaft—**

Case Mfg. Co., Columbus, O.  
North American Metaline Co., Long Island City, N. Y.

**Bearings, Ring Oiling—**

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Nazareth Foundry & Machine Co., Nazareth, Pa.

**Bearings, Roller—**

American Ball Co., Providence, R. I.  
Atlas Car & Mfg. Co., Cleveland, O.

Ball Bearing Co., 2322 Market St., Philadelphia, Pa.

Bantam Mfg. Co., Bantam, Ct.

Hyatt Roller Bearing Co., Harrison, N. J.

Arthur Koppel, 66-68 Broad St., N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Machinery Co., Providence, R. I.

**Bearings, Self-Oiling—**

Boston & Lockport Block Co., Boston, Mass.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Nazareth Foundry & Machine Co., Nazareth, Pa.

**Bearings, Thrust—**

American Ball Co., Providence, R. I.  
Ball Bearing Co., 2322 Market St., Philadelphia, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Standard Machinery Co., Providence, R. I.

**Bearings, Turn Table—**

Bantam Mfg. Co., Bantam, Ct.

**Bearings, Wood—**

Piqua Handle & Mfg. Co., Piqua, O.

**Bearings, Wringer—**

Federal Mfg. Co., Cleveland, O.

**Beaters, Clothes, Carpet, &c.—**

Holt-Lyon Co., Inc., Tarrytown, N. Y.

Raymond Mfg. Co., Ltd., Corry, Pa.

Western Wire Goods Co., Buffalo, N. Y.

**Beaters, Egg—**

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Holt-Lyon Co., Inc., Tarrytown, N. Y.

Fred J. Meyers Mfg. Co., Hamilton, O.

Parker Wire Goods Co., Worcester, Mass.

Teplin Mfg. Co., New Britain, Ct.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Bed Casters, Fasteners, Keys, Links, Screws—**

(See Casters, Fasteners, Keys, Links, Screws.)

**Bed Fabrics, Wire Woven—**

Cleveland Wire Spring Co., Cleveland, O.  
Clinton Wire Cloth Co., Clinton, Mass.

**Bedsteads, Brass and Iron—**

Ansonia Brass & Copper Co., 99 John St., New York.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Fred, J. Meyers Mfg. Co., Hamilton, O.

Van Dorn Iron Works Co., Cleveland, O.

**Beer Pump Supplies—**

(See Pump Supplies, Beer.)

**Bees Wax, Pattern—**

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

**Beet Shredding Knives—**

(See Knives, Beet.)

**Beet Scoops—**

(See Scoops, Fork, Vegetable.)

**Belaying Pins—**

(See Pins, Belaying.)

**Bell Centering Tools—**

(See Tools, Bell Centering.)

**Bell Cord Couplings—**

(See Couplings, Bell Cord.)

**Bell Cranks, Levers, &c.—**

(See Cranks, Levers, &c.)

**Bell Hangers' Bits—**

(See Bits, Bell Hangers.)

**Bellows & Blacksmiths' Molders, &c.—**

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Geo. M. Scott, Johnson & 22d Sts., Chicago, Ill.

J. D. Smith Foundry Supply Co., Cleveland, O.

**Bellows, Foot Power—**

White Mfg. Co., 93 Michigan St., Chicago, Ill.

**Bellows, Piano—**

R. Bliss Mfg. Co., Pawtucket, R. I.

**Bells, Alarm—**

Bevin Bros. Mfg. Co., East Hampton, Ct.

N. N. Hill Brass Co., East Hampton, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Starr Bros. Bell Co., East Hampton, Ct.

E. W. Vanduzen Co., Cincinnati, O.

**Bells, Altar and Lodge—**

Bevin Bros. Mfg. Co., East Hampton, Ct.

N. N. Hill Brass Co., East Hampton, Ct.

Starr Bros. Bell Co., East Hampton, Ct.

Frank Mossberg Co., Attleboro, Mass.

Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Automobile—**

Bevin Bros. Mfg. Co., East Hampton, Ct.

Gong Bell Mfg. Co., East Hampton, Ct.

N. N. Hill Brass Co., East Hampton, Ct.

Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Bicycle—**

Bevin Bros. Mfg. Co., East Hampton, Ct.

Bridgeport Brass Co., Bridgeport, Ct.

Cheswick Mfg. Co., Cheswick, Pa.

Gong Bell Mfg. Co., East Hampton, Ct.

John H. Graham & Co., 115 Chambers St., New York.

N. N. Hill Brass Co., East Hampton, Ct.

Frank Mossberg Co., Attleboro, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Seovill Mfg. Co., Waterbury, Ct.  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Call—**  
(See Bells, Tea and Call.)

**Bells, Car—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Cheswick Mfg. Co., Cheswick, Pa.  
John H. Graham & Co., 113 Chambers St.,  
New York.

N. N. Hill Brass Co., East Hampton, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Cow and Sheep—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Sargent & Co., 151 Leonard St., N. Y.  
Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Dog—**  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Door—**  
Arcade Mfg. Co., Freeport, Ill.  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Gong Bell Mfg. Co., East Hampton, Ct.  
John H. Graham & Co., 113 Chambers St.,  
New York.

N. N. Hill Brass Co., East Hampton, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Dumb—**  
Blacklock Foundry, So. Pittsburg, Tenn.  
E. B. Estes & Sons, 45-47 John St., N. Y.  
John C. Kupferle, St. Louis, Mo.  
Piqua Handle & Mfg. Co., Piqua, O.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
John Sommer's Son, Newark, N. J.  
Stowell Mfg. & Foundry Co., So. Milwaukee, Wis.

A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Bells, Electric—**  
Gong Bell Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Holzer-Carbot Electric Co., Boston, Mass.  
W. R. Ostrander & Co., 22 Dey St., N. Y.

**Bells, Engine—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Gong Bell Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Paul S. Reeves & Son, Philadelphia, Pa.  
Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Farm, Church and  
School, &c.—**

Bevin Bros. Mfg. Co., East Hampton, Ct.  
Goulds Mfg. Co., Seneca Falls, N. Y.  
N. N. Hill Brass Co., East Hampton, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Fire—**  
John H. Graham & Co., 113 Chambers St.,  
New York.

**Bells, Fog—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Gong—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Cheswick Mfg. Co., Cheswick, Pa.  
Gong Bell Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
W. R. Ostrander & Co., 22 Dey St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Hand—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Gong Bell Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Hand and Electric,**  
**Silver Plated—**  
International Silver Co., 9-13 Maiden  
Lane, New York.

**Bells, House—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Gong Bell Mfg. Co., East Hampton, Ct.  
W. R. Ostrander & Co., 22 Dey St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Starr Bros. Bell Co., East Hampton, Ct.

**Bells, House (on Carriage)—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Bells, Lever—**  
W. R. Ostrander & Co., 22 Dey St., N. Y.

**Bells, Locomotive—**  
Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Milkman's—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Gong Bell Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Pneumatic Call—**  
W. R. Ostrander & Co., 22 Dey St., N. Y.

**Bells, Ship and Signal—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Edson Mfg. Co., Boston, Mass.  
N. N. Hill Brass Co., East Hampton, Ct.  
Starr Bros. Bell Co., East Hampton, Ct.  
E. W. Vanduzen Co., Cincinnati, O.

**Bells, Sleigh and Team—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.  
Starr Bros. Bell Co., East Hampton, Ct.

**Bells, Tea and Call—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Bridgeport Hardware Mfg. Co., Bridge-  
port, Ct.

Gong Bell Mfg. Co., East Hampton, Ct.  
John H. Graham & Co., 113 Chambers St.,  
New York.

N. N. Hill Brass Co., East Hampton, Ct.  
Landers, Frary & Clark, New Bedford, Mass.



Frank Mossberg Co., Attleboro, Mass.  
 Peck, Stow & Wilcox Co., 21 Murray St.,  
 New York.  
 Russell & Erwin Mfg. Co., 43-47 Chambers  
 St., New York.  
 Starr Bros. Bell Co., East Hampton, Ct.  
 E. W. Vandusen Co., Cincinnati, O.  
**Bells, Telephone and Clock—**  
 Bevin Bros. Mfg. Co., East Hampton, Ct.  
 Bridgeport Brass Co., Bridgeport, Ct.  
 N. N. Hill Brass Co., East Hampton, Ct.  
 Plume & Atwood Mfg. Co., Waterbury,  
 Ct.

### Bells, Toy—

(See Toy Bells.)

### Bells, Trip Gong—

Gong Bell Mfg. Co., East Hampton, Ct.  
 Starr Bros. Bell Co., East Hampton, Ct.

### Bells, Turkey—

Starr Bros. Bell Co., East Hampton, Ct.

### Belt Awls, Couplings, &c.—

(See Awls, Couplings, &c.)

### Belt Conveyor Trippers—

H. W. Caldwell & Son Co., Western Ave.  
 and 17th St., Chicago, Ill.

### Belt Dressing—

Alexander Bros., 410-412 N. 3d St., Phila-  
 delphia, Pa.

Jos. Dixon Crucible Co., Jersey City, N. J.  
 Ironsides Co., Columbus, O.

Main Belting Co., 1219 Carpenter St.,  
 Philadelphia, Pa.

Shultz Belting Co., St. Louis, Mo.

### Belt, Harness and Hardware

### Blanket—

North & Judd Mfg. Co., New Britain, Ct.

### Belting, Canvas and Duck—

Ames Sword Co., Chicopee, Mass.  
 Case Mfg. Co., Columbus, O.

Main Belting Co., 1219-1235 Carpenter St.,  
 Philadelphia, Pa.

### Belting Cement—

(See Cement, Belting.)

### Belting, Chain—

Buhl Malleable Co., Detroit, Mich.  
 Dodge Mfg. Co., Mishawaka, Ind.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,  
 Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15  
 Murray St., New York.

Stanley Works, New Britain, Ct.

### MERCHANTS

Borden & Selleck Co., 48 Lake St., Chi-  
 cago, Ill.

H. W. Caldwell & Son Co., Western Ave.  
 and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Wickes Bros., Saginaw, Mich.

### Belts, Conveying—

Main Belting Co., 1219 Carpenter St.,  
 Philadelphia, Pa.

### Belting, Conveyor, Wire—

Clinton Wire Cloth Co., Clinton, Mass.

### Belting, Leather—

Alexander Bros., 410-412 N. 3d St., Phila-  
 delphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Shultz Belting Co., St. Louis, Mo.

### Belting, Lark—

Bethlehem Foundry & Machine Co., South  
 Bethlehem, Pa.

Buhl Malleable Co., Detroit, Mich.  
 Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Filer & Stowell Co., Milwaukee, Wis.  
 Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,  
 Philadelphia, Pa.

Stowell Mfg. & Foundry Co., So. Mil-  
 waukee, Wis.

Whitman & Barnes Mfg. Co., Akron, O.

### MERCHANTS

Borden & Selleck Co., 48 Lake St., Chi-  
 cago, Ill.

H. W. Caldwell & Son Co., Western Ave.  
 and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Nazareth Foundry & Machine Co., Naza-  
 reth, Pa.

Wickes Bros., Saginaw, Mich.

**Belting, Rawhide—**  
 Shultz Belting Co., St. Louis, Mo.

**Belting, Rubber—**  
 Fairbanks Co., 416 Broome St., New York.

Robins Conveying Belt Co., 17-22 Park  
 Row, New York.

Whitman & Barnes Mfg. Co., Akron, O.

**Belt Lacing, Leather and**  
**Rawhide—**  
 Fairbanks Co., 416 Broome St., New York.

Shultz Belting Co., St. Louis, Mo.

**Belt Lacing Machines—**  
 Diamond Drill & Machine Co., Birdsboro,  
 Pa.

**Belt Lacing, Steel—**  
 (See Hooks, Belt; Fasteners, Belt.)

**Belts, Conveying—**  
 Buhl Malleable Co., Detroit, Mich.

Robins Conveying Belt Co., 17-22 Park  
 Row, New York.

### MERCHANTS

Case Mfg. Co., Columbus, O.

**Belt Shifters—**  
 Builders' Iron Foundry, Providence, R. I.

Case Mfg. Co., Columbus, O.

Chandler & Farquhar, Boston, Mass.

Geo. V. Cresson Co., 18th St., & Alle-  
 gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Mason Regulator Co., Boston, Mass.

Pratt & Whitney Co., Hartford, Ct.

**Belts, Polishing—**  
 (See Buffing and Polishing Machines.)

**Belt Tighteners—**  
 Allis-Chalmers Co., Home Insurance Bldg.,  
 Chicago, Ill.

American Tool & Machine Co., Boston,  
 Mass.

Billings & Spencer Co., Hartford, Ct.

H. W. Caldwell & Son Co., Western Ave.  
 and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.

Geo. V. Cresson Co., 18th St., & Alle-  
 gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Filer & Stowell Co., Milwaukee, Wis.

Foggson & Pettis Mfg. Co., New Haven, Ct.

Jones & Laughlin Steel Co., Pittsburgh,  
 Pa.

Nazareth Foundry & Machine Co., Naza-  
 reth, Pa.

R. Poole Engineering & Machine Co.,  
 Baltimore, Md.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

**Benches, Circular Saw—**  
 American Machinery Co., Grand Rapids,  
 Mich.

Baier Bros., Toledo, O.

Kimball Bros. & Sprague, Boston, Mass.

**MERCHANTS.**

Bill; Clarke & Co., Boston, Mass.

**Benchers, Carpenters' Work.**

American Tool Chest Co., 200 West Houston St., New York.

**Benchers, Draw.**

(See Draw Benches.)

**Benchers, Folding.**

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

**Benchers, Hydraulic Draw.**

(See Draw Benches, Hydraulic.)

**Benchers, Machinists' Work.**

Fairbanks Co., 416 Broome St., New York.

**Benchers, Scrapers.**

F. E. Reed & Co., Worcester, Mass.

**Benchers, Sewing.**

R. Bliss Mfg. Co., Pawtucket, R. I.

**Benchers, Tub and Wringer.**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

National Sweeper Co., Marion, Ind.

A. J. Phillips Co., Ponton, Mich.

**Bench Lathes, Stops, &c.**

(See Lathes, Stops, &c.)

**Bench Leg Castings.**

(See Castings, Bench Leg.)

**Benders, Bicycle Spoke.**

(See Spoke Benders and Benders, Bicycle.)

**Benders, Pipe, Wire.**

Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Raymond Mfg. Co., Corry, Pa.

**Benders, Rail.**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Hilles & Jones Co., Wilmington, Del.

Long & Alistatter Co., Hamilton, O.

P. Hollingsworth Morris, 1501 So. Front St., Philadelphia, Pa.

Nazareth Foundry & Machine Co., Nazareth, Pa.

Geo. B. Sennett Co., Youngstown, O.

Sheffield Car Co., Three Rivers, Mich.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Watson-Stillman Co., 204-210 East 43d St., New York.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.

Jos. F. McCoy Co., 157 Chambers St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Benders, Tire.**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Boynton & Plummer, Worcester, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Champion Blower & Forge Co., Lancaster, Pa.

National Fulton Brass Mfg. Co., Detroit, Mich.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Bending Irons.**

(See Irons, Bending.)

**Bending Machines.**

(See Forming and Bending Machines.)

**Bending Machines, Angle and Eye.**

Fischer Foundry & Machine Co., Pittsburgh, Pa.

**Bending Machines, Hydraulic.**

Bertsch & Co., Cambridge City, Ind.

Bethlehem Steel Co., So. Bethlehem, Pa.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Jos. F. McCoy Co., 26 Warren St., N. Y.

**Bending Machines, Hydraulic Rail.**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Watson-Stillman Co., 204-210 East 43d St., New York.

**MERCHANTS.**

Jos. F. McCoy Co., 157 Chambers St., New York.

**Bending Machines, Tube.**

Watson-Stillman Co., 204-210 East 43d St., New York.

**Bends, Wrought Iron, for Steam Plants.**

Crane Co., Chicago, Ill.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

National Pipe Bending Co., New Haven, Ct.

Whitlock Coil Pipe Co., Hartford, Ct.

**Bent Riflers.**

(See Riflers, Bent.)

**Berry Bowls, Dishes.**

(See Bowls, Dishes.)

**Berry Washers.**

(See Kitchen Articles, Wire.)

**Bessemer Coppered Rods.**

(See Rods, Bessemer, Coppered.)

**Beveling Shears.**

(See Shears, Beveling.)

**Bevels.**

Athol Machine Co., Athol, Mass.

Boston Gear Works, Boston, Mass.

Henry Diston & Sons, Philadelphia, Pa.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

**Bicycle Bells, Forgings.**

&c.

(See Bells, Forgings, &c.)

**Bicycle Chain Bars.**

Finished Steel Co., Youngstown, O.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

**Bicycle Chain, Parts for.**

Finished Steel Co., Youngstown, O.

**Bicycle Chains.**

(See Chains, Bicycle.)

**Bicycle Coaster Brakes.**

(See Brakes, Coaster, Bicycle.)

**Bicycle Lamps.**

(See Lamps, Bicycle.)

**Bicycle Machinery.**

Adriance Machine Works, Brooklyn, N. Y.

American Tool Works Co., Cincinnati, O.

Baker Bros., Toledo, O.

Bickford Drill & Tool Co., Cincinnati, O.

Billings & Spencer Co., Hartford, Ct.

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

**Bridgeport Safety Emery Wheel Co.,**  
Bridgeport, Ct.

**Draper Machine Tool Co.,** Worcester,  
Mass.

**Fox Machine Co.,** Grand Rapids, Mich.  
**Garvin Machine Co.,** Spring and Varick  
Sts., New York.

**Hannan and Finton,** Springfield, Mass.

**Hoefer Mfg. Co.,** Freeport, Ill.

**Manning, Maxwell & Moore,** 85 Liberty  
St., New York.

**J. J. McCabe,** 14 Day St., New York.

**New Haven Mfg. Co.,** New Haven, Ct.

**Niles-Bement-Pond Co.,** 136-138 Liberty St.,  
New York.

**Pratt & Whitney Co.,** Hartford, Ct.

#### MERCHANTS.

**George E. Abeck,** 107 Liberty St., N. Y.

**W. P. Davis Mach. Co.,** Rochester, N. Y.

**Fairbanks Co.,** 416 Broome St., New York.

**Hill, Clarke & Co.,** Boston, Mass.

**Marshall & Hueschart Machinery Co.,** 62-  
64 So. Canal St., Chicago, Ill.

**Prentiss Tool & Supply Co.,** 115 Liberty  
St., New York.

#### Bicycle Parts—

**American Tube & Stamping Co.,** Bridge-  
port, Ct.

**Ames Sword Co.,** Chicopee, Mass.

**Avery Stamping Co.,** Cleveland, O.

**Billings & Spencer Co.,** Hartford, Ct.

**Crosby Co.,** Buffalo, N. Y.

**Federal Mfg. Co.,** Cleveland, O.

**Keystone Drop Forge Works,** Chester, Pa.

**Kilborn & Bishop Co.,** New Haven, Ct.

**John S. Leng's Son & Co.,** 4 Fletcher  
St., New York.

**New Britain Hdw. Mfg. Co.,** New Britain,  
Ct.

**Pittsburgh Screw & Bolt Co.,** Pittsburgh,  
Pa.

**Springfield Machine Screw Co.,** Springfield,  
Mass.

**Standard Welding Co.,** Cleveland, O.

**Strieby & Foote Co.,** Newark, N. J.

**Sturges & Burn Mfg. Co.,** Chicago, Ill.

**Turner Brass Works,** 44 North Franklin  
St., Chicago, Ill.

**Union Mfg. & Specialty Co.,** Buffalo,  
N. Y.

**Wire Goods Co.,** Worcester, Mass.

#### Bicycles and Sundries—

**Iver Johnson's Arms & Cycle Works,**  
Fitchburg, Mass.

**John S. Leng's Son & Co.,** 4 Fletcher St.,  
New York.

**Fred. J. Meyers Mfg. Co.,** Hamilton, O.

**National Sewing Mach. Co.,** Belvidere, Ill.

**Reading Standard Cycle Mfg. Co.,** Read-  
ing, Pa.

**Remington Arms Co.,** 313 Broadway, N. Y.

**Sturges & Burn Mfg. Co.,** Chicago, Ill.

#### Bicycle Tires—

(See Tires, Bicycle.)

#### Bill Binders—

(See Binders, Bill Letter, &c.)

#### Billets, Open Hearth—

**Allegheny Steel & Iron Co.,** Pittsburgh,  
Pa.

**Dominion Iron & Steel Co.,** Sydney, Nova  
Scotia, Canada.

**Alan Wood Iron & Steel Co.,** 519 Arch  
St., Philadelphia, Pa.

#### Billets, Steel—

**Allegheny Steel & Iron Co.,** Pittsburgh,  
Pa.

**Bethlehem Steel Co.,** So. Bethlehem, Pa.  
**Dominion Iron & Steel Co.,** Sydney, Nova  
Scotia, Canada.

**Harrisburg Pipe & Pipe Bending Co.,**  
Harrisburg, Pa.

**Jones & Laughlin Steel Co.,** Pittsburgh,  
Pa.

**La Belle Iron Works,** Steubenville, O.

**Republic Iron & Steel Co.,** Stock Ex-  
change Bldg., Chicago, Ill.

**Abel Rollason & Sons,** Birmingham, Eng-  
land.

**Vulcan Crucible Steel Co.,** Alliquippa, Pa.

**Washburn Wire Co.,** Phillipsdale, R. I.

**Alan Wood Iron & Steel Co.,** 519 Arch  
St., Philadelphia, Pa.

#### MERCHANTS.

**Rassett-Presley Co.,** Cleveland, O.

**Bourne-Fuller Co.,** Cleveland, O.

**Cabeen & Co.,** Real Estate Trust Bldg.,  
Philadelphia, Pa.

**Justice Cox, Jr. & Co., Ltd.,** Bullitt  
Bldg., Philadelphia, Pa.

**J. H. Hillman & Son,** Pittsburgh, Pa.

**C. B. Honston & Co.,** Girard Bldg.,  
Philadelphia, Pa.

**George T. Johnson & Co.,** Pennsylvania  
Bldg., Philadelphia, Pa.

**Jerome Keeley & Co.,** 421 Chestnut St.,  
Philadelphia, Pa.

**J. Tatnall Lea & Co.,** 19 So. 12th St.,  
Philadelphia, Pa.

**C. W. Leavitt & Co.,** 15 Cortlandt St.,  
New York.

**James Lee & Co.,** 76 William St., N. Y.

**N. Lilienberg, Betz Bldg.,** Philadelphia,  
Pa.

**A. Milne Co.,** 1 Broadway, New York.

**Nazareth Foundry & Machine Co.,** Naza-  
reth, Pa.

**F. R. Phillips & Sons Co.,** Harrison  
Bldg., Philadelphia, Pa.

**Pilling & Crane,** Girard Bldg., Philadel-  
phia, Pa.

**Frank Samuel,** 15th & Market Sts., Phil-  
adelphia, Pa.

**W. P. Snyder & Co.,** Pittsburgh, Pa.

**E. H. Wilson & Co.,** 112 No. Broad St.,  
Philadelphia, Pa.

#### Billiard Table Bolts and

#### Cushions—

(See Bolts, Billiard Table.)

#### Binders and Holders, Loose

#### Leaf—

**Tenkwall File & Ledger Co.,** Ravenswood  
Sta., Chicago, Ill.

#### Binders, Corn—

**Stover Mfg. Co.,** Freeport, Ill.

#### Binders, Lead—

**Morley Bros.,** Saginaw, Mich.

#### Binders, Log—

**Morley Bros.,** Saginaw, Mich.

**Stowell Mfg. & Foundry Co.,** South Mil-  
waukee, Wis.

#### Binders, Loose Leaf—

**Globe-Vernicke Co.,** Cincinnati, O.

#### Binder Twine—

(See Twine, Binder.)

#### Binding Chain—

(See Chain.)

#### Binding, Trunk—

**J. H. Sessions & Son,** Bristol, Ct.

#### Binnacles—

**Kenfel & Esser Co.,** 127 Fulton St., N. Y.

**Riggs & Bro.,** 310 Market St., Philadel-  
phia, Pa.

**Bins, Nail—**

W. J. Clark Co., Salem, O.  
J. D. Warren Mfg. Co., Chicago, Ill.

**Bird Cage Hooks, Springs—**  
(See Hooks, Springs.)

**Bird Cages—**

(See Cages, Bird and Animal.)

**Bit and Square Levels—**

(See Levels, Bit and Square.)

**Bit Braces, Gauges, &c.—**

(See Braces, Gauges, &c.)

**Bits, Bell Hangers, Electricians—**

Cleveland Twist Drill Co., Cleveland, O.  
Detroit Twist Drill Co., Detroit, Mich.  
Forest City Bit & Tool Co., Rockford, Ill.  
H. H. Mayhew Co., Shelburne Falls, Mass.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Snell Mfg. Co., Fiskdale, Mass.

**Bits, Brace, Boring Machines, &c.—**

(See Augers and Bits.)

**Bits, Bridge—**

Kilborn & Bishop Co., New Haven, Ct.  
North & Judd Mfg. Co., New Britain, Ct.

**Bits, Broom Handle—**

H. H. Mayhew Co., Shelburne Falls, Mass.

**Bits, Countersink—**

Forest City Bit & Tool Co., Rockford, Ill.  
Kilborn & Bishop Co., New Haven, Ct.  
H. H. Mayhew Co., Shelburne Falls, Mass.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Snell Mfg. Co., Fiskdale, Mass.

**Bits, Expansive—**

H. H. Brown Co., New Haven, Ct.  
Connecticut Valley Mfg. Co., Center Brook, Ct.

John H. Graham & Co., 113 Chambers St., New York.

C. E. Jennings Co., 42 Murray St., N. Y.

Kilborn & Bishop Co., New Haven, Ct.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

**Bits, Hollow Chisel—**

Forest City Bit & Tool Co., Rockford, Ill.

**Bits, Hub Boring—**

Detroit Twist Drill Co., Detroit, Mich.

**Bits, Machine Wood—**

Detroit Twist Drill Co., Detroit, Mich.  
Forest City Bit & Tool Co., Rockford, Ill.

Standard Tool Co., Cleveland, O.  
Whitman & Barnes Mfg. Co., Akron, O.

**Bits, Pod—**

H. H. Mayhew Co., Shelburne Falls, Mass.  
Snell Mfg. Co., Fiskdale, Mass.

**Bits, Screw Driver—**

Braunsdorf-Mueller Co., Elizabeth, N. J.  
Charles Buck, Millbury, Mass.

Connecticut Valley Mfg. Co., Center Brook, Ct.

Ford Auger Bit Co., Holyoke, Mass.  
Goodell-Pratt Co., Greenfield, Mass.

John H. Graham & Co., 113 Chambers St., New York.

Hurwood Mfg. Co., Bridgeport, Ct.  
Keystone Drop Forge Works, Chester, Pa.

H. H. Mayhew Co., Shelburne Falls, Mass.  
Millers Falls Co., 28 Warren St., N. Y.

Ohio Tool Co., Columbus, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Snell Mfg. Co., Fiskdale, Mass.  
Standard Tool Co., Cleveland, O.  
Tuck Mfg. Co., Brockton, Mass.

**Bits, Square Boring—**

Cleveland Lock Co., Cleveland, O.

**Bit Stocks, Angle Boring—**

John S. Fray & Co., Bridgeport, Ct.  
Millers Falls Co., 28 Warren St., N. Y.

**Bits, Tree Tapping—**

H. H. Mayhew Co., Shelburne Falls, Mass.

**Blackboards, Children's—**

Maine Mfg. Co., Nashua, N. H.

**Blacking Box Holders—**

(See Holders, Blacking Box.)

**Black Plate for Tinning—**

(See Plate, Black, for Tinning.)

**Blacksmiths' Bellows, Buffers, &c.—**

(See Bellows, Buffers, &c.)

**Blacksmiths' Tools—**

Acme Machinery Co., Cleveland, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Buffalo Forge Co., Buffalo, N. Y.

Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.

Cincinnati Punch & Shear Co., Cincinnati, O.

Goodell-Pratt Co., Greenfield, Mass.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

Sargent & Co., 151 Leonard St., N. Y.

Williams, White & Co., Moline, Ill.

**Blade Saw, Blanks—**

Henry Disston & Sons, Philadelphia, Pa.

**Blades and Handles, Extension Knife—**

Dame, Stoddard & Co., Boston, Mass.

**Blades, Butcher Saw—**

John Chatillon & Sons, 85 Cliff St., N. Y.

Diamond Saw & Stamping Works, Buffalo, N. Y.

Henry Disston & Sons, Philadelphia, Pa.

Fitchburg File Works, Fitchburg, Mass.

Goodell-Pratt Co., Greenfield, Mass.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

**Blades, Doctor—**

Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

**Blades, Gin Roller—**

Henry Disston & Sons, Philadelphia, Pa.

**Blades, Metal Shear—**

Cincinnati Punch & Shear Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

Heppenstall Forge & Knife Co., Pittsburg, Pa.

Hilles & Jones Co., Wilmington, Del.

John Lloyd Co., 553 Water St., New York.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

George B. Sennett Co., Youngstown, O.

Simonds Mfg. Co., Fitchburg, Mass.

L. & L. J. White Co., Buffalo, N. Y.

**Blades, Plain and Corrugated Saw—**

American Steel Hoop Co., Pittsburgh, Pa.

**Blades, Plush Cutting—**

Holley Mfg. Co., Lakeville, Ct.

**Blades, Saw, Hack, &c.—**

(See Saws, Hack, &c.)

- Blanking and Forming.**  
**Sheet Metal—**  
 (See Stamping, Sheet Metal.)
- Blanks, Gear—**  
 Case Mfg. Co., Columbus, O.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Tindell-Morris Co., Eddystone, Pa.
- Blanks, Snap Gauge—**  
 Billings & Spencer Co., Hartford, Ct.
- Blanks, Thumb Nut—**  
 Billings & Spencer Co., Hartford, Ct.  
 Keystone Drop Forge Works, Chester, Pa.  
 J. H. Williams & Co., Brooklyn, N. Y.
- Blanks, Thumb Screw—**  
 Billings & Spencer Co., Hartford, Ct.  
 Keystone Drop Forge Works, Chester, Pa.  
 J. H. Williams & Co., Brooklyn, N. Y.
- Blast Furnace Casting Machines—**  
 (See Casting Machines, Blast Furnace.)
- Blast Furnace Machinery—**  
 Allentown Rolling Mills, Allentown, Pa.  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 A. Garrison Foundry Co., Pittsburgh, Pa.  
 Mesta Machine Co., Pittsburgh, Pa.  
 Pennsylvania Engineering Works, New Castle, Pa.  
 W. B. Pollock Co., Youngstown, O.  
 Wm. Tod Co., Youngstown, O.  
 Wellman-Seaver-Morgan Co., Cleveland, O.
- Blast Gates—**  
 (See Gates, Blast.)
- Blind Adjusters, Fasteners, Hinges—**  
 (See Adjusters, Fasteners, Hinges.)
- Blind Workers—**  
 (See Workers, Shutter.)
- Blocking, Adjustable—**  
 Wm. G. Le Count, South Norwalk, Ct.
- Blocks, Blast Furnace—**  
 M. D. Valentine & Bro. Co., Woodbridge, N. J.
- Blocks, Bucket—**  
 Stowell Mfg. & Foundry Co., South Milwaukee, Wis.
- Block Scrapers, Butchers'—**  
 (See Scrapers, Butchers' Block.)
- Blocks, Deck and Snatch—**  
 Boston & Lockport Block Co., Boston.  
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Stowell Mfg. & Foundry Co., So. Milwaukee, Wis.  
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Blocks, Differential Pulley—**  
 Boston & Lockport Block Co., Boston.  
 Cuihsolm & Moore Mfg. Co., Cleveland, O.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 New Jersey Foundry and Machine Co., 9-15 Murray St., New York.  
 Yale & Towne Mfg. Co., 9-13 Murray St., New York.
- Blocks, Floor Broom—**  
 Piqua Handle & Mfg. Co., Piqua, O.
- Blocks, Granite Cutters'—**  
**Winding—**  
 Trow & Holden, Barre, Vt.
- Blocks, Hoisting—**  
 Boston & Lockport Block Co., Boston.
- Dobbie Foundry & Machine Co., Niagara Falls, N. Y.**  
 C. W. Hunt Co., West New Brighton, N. Y.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Blocks, Lead—**  
 Stowell Mfg. & Foundry Co., South Milwaukee, Wis.
- Blocks, Leveling—**  
 Jos. F. McCoy Co., 25 Warren St., N. Y.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.
- Blocks, Locomotive—**  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Ostrander Fire Brick Co., Troy, N. Y.
- Blocks, Log Loading—**  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Morley Bros., Saginaw, Mich.  
 Stowell Mfg. & Foundry Co., So. Milwaukee, Wis.
- Blocks, Machinists'—**  
 Ideal Machine Co., Hartford, Ct.
- Blocks, Pillow—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Borden & Selleck Co., 48 Lake St., Chicago, Ill.  
 Buhl Malleable Co., Detroit, Mich.  
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.  
 Case Mfg. Co., Columbus, O.  
 Columbia Bridge Co., Pittsburgh, Pa.  
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.  
 Dodge Mfg. Co., Mishawaka, Ind.  
 Fairbanks Co., 416 Broome St., New York.  
 Filer & Stowell Co., Milwaukee, Wis.  
 Jeffrey Mfg. Co., Columbus, O.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Robins Conveying Belt Co., 17-22 Park Row, New York.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 Wickes Bros., Saginaw, Mich.  
 Wolf Co., 523 N. 23d St., Philadelphia, Pa.
- Blocks, Scribing—**  
 Hoggson & Pettis Mfg. Co., New Haven, Ct.
- Blocks, Steel—**  
 Boston & Lockport Block Co., Boston.  
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
 A. Leschen & Sons Rope Co., St. Louis.  
 Macomber & Whyte Rope Co., Chicago.
- Blocks, Swage—**  
 Pleunger & Henger Mfg. Co., St. Louis, Mo.  
 Wells Bros. & Co., Greenfield, Mass.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.
- Blocks, Tackle—**  
 Boston & Lockport Block Co., Boston.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Buhl Malleable Co., Detroit, Mich.  
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
 Lane Bros. Co., Poughkeepsie, N. Y.

A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Macomber & Whyte Rope Co., Chicago, Ill.  
 National Fulton Brass Mfg. Co., Detroit, Mich.  
 Rhode Island Tool Co., Providence, R. I.  
 Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
 W. & J. Tiebout, 118 Chambers St., N. Y.  
 Trenton Iron Co., Trenton, N. J.  
 Union Hardware Co., Torrington, Ct.

**Blocks, Wire Rope—**  
 Broderick & Bascom Rope Co., St. Louis, Mo.

**Blowing Mills—**  
 A. Garrison Foundry Co., Pittsburgh, Pa.  
 Mesta Machine Co., Pittsburgh, Pa.  
 Pennsylvania Engineering Works, New Castle, Pa.  
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.  
 William Tod Co., Youngstown, O.

**Blooms, Charcoal—**  
 La Belle Iron Works, Steubenville, O.

**MERCHANTS.**

J. H. Hillman & Son, Pittsburgh, Pa.  
 C. W. Levitt & Co., 15 Cortlandt St., New York.  
 N. Lilienberg, Betz Bldg., Philadelphia, Pa.  
 J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.  
 Wheeler, Miffin & Co., Fidelity Bldg., Philadelphia, Pa.  
**Blooms, Open Hearth Steel—**  
 Dominion Iron & Steel Co., Sydney, Nova Scotia, Canada.

**Blowers—**  
 American Blower Co., Detroit, Mich.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Boston Blower Co., Hyde Park, Mass.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Champion Blower & Forge Co., Lancaster, Pa.  
 Connersville Blower Co., Connersville, Ind.  
 Exeter Machine Works, Exeter, N. H.  
 Fairbanks Co., 416 Broome St., New York.  
 Hannan & Pinton, Springfield, Mass.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Parson Mfg. Co., 320 Broadway, N. Y.  
 J. W. Parson Co., 1021 N. Delaware Ave., Philadelphia, Pa.  
 Slotkin & Fraglin, 210 Canal St., N. Y.  
 Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

B. F. Sturtevant Co., Boston, Mass.  
**MERCHANTS.**  
 Brown-Wales Co., Boston, Mass.  
 Fulton Blower & Supply Co., 180 Fulton St., New York.  
 Mertes Machinery Co., Milwaukee, Wis.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 S. Obermayer Co., Cincinnati, O.  
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
 Wickes Bros., Saginaw, Mich.

**Blowers, Electric—**  
 Buffalo Forge Co., Buffalo, N. Y.  
 General Electric Co., Schenectady, N. Y.  
 B. F. Sturtevant Co., Boston, Mass.

**Blowers, Pressure—**  
 American Blower Co., Detroit, Mich.  
 American Gas Furnace Co., 23 John St., New York.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
 Boston Blower Co., Hyde Park, Mass.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.  
 Connersville Blower Co., Connersville, Ind.  
 Exeter Machine Works, Exeter, N. H.  
 Fairbanks Co., 416 Broome St., New York.  
 Northern Electrical Mfg. Co., Madison, Wis.  
 B. F. Sturtevant Co., Boston, Mass.

**MERCHANTS.**

Fulton Blower & Supply Co., 180 Fulton St., New York.

**Blowers, Steam Jet—**  
 Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

**Blower Stands—**  
 (See Stands, Blower.)

**Blow Off Tanks—**  
 E. Keeler Co., Williamsport, Pa.  
 Wm. B. Pollock Co., Youngstown, O.

**Board Bill Clips—**  
 (See Clips, Bill, Letter, &c., Board.)

**Board Rules—**  
 (See Rules, Board.)

**Boards, Bread and Pastry—**  
 Hill Dryer Co., Worcester, Mass.

**Boards, Drawing—**  
 Keuffel & Esser Co., 127 Fulton St., N. Y.

**Boards, Glass—**  
 Lufkin Rule Co., Saginaw, Mich.

**Boards, Ironing—**  
 Hill Dryer Co., Worcester, Mass.

**Boards, Paper Clip—**  
 Globe-Wernicke Co., Cincinnati, O.

**Boat Anchors, Hooks, &c.—**  
 (See Anchors, Hooks, &c.)

**Boats, Sail—**  
 John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

**Bobs, Plumb—**  
 Braunsdorf-Mueller Co., Elizabeth, N. J.  
 Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Diston & Sons, Philadelphia, Pa.  
 Keuffel & Esser Co., 127 Fulton St., New York.

John C. Kuperle, St. Louis, Mo.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.  
 Tower & Lyon Co., 95 Chambers St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

**Boiler Rollers—**  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

**Boiler Brace Iron—**  
 (See Iron, Boiler Braces.)

**Boiler Braces—**  
 Lukens Iron & Steel Co., Coatesville, Pa.

**Boiler Braces, Pressed—**

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Boiler Cleaners—**

(See Cleaners, Flue.)

**Boiler Compounds—**

(See Compounds, Boiler.)

**Boiler Drill Furnaces, &c.—**

(See Drills, Furnaces, &c.)

**Boiler Feeders, Low Pressure—**

Walworth Mfg. Co., Boston, Mass.

**Boiler Fronts—**

Wm. Bayley & Sons Co., Milwaukee, Wis.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
E. Keeler Co., Williamsport, Pa.  
Struthers, Wells & Co., Warren, Pa.  
Walworth Mfg. Co., Boston, Mass.

**MERCHANTS.**

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Boiler Handles—**

(See Turners' Trimmings.)

**Boiler Heads—**

(See Heads, Flanged and Dished Boilers.)

**Boiler Makers' Tools—**

American Tool Works Co., Cincinnati, O.  
Bertsch & Co., Cambridge City, Ind.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Cincinnati Punch & Shear Co., Cincinnati, O.  
Fischer Foundry & Machine Co., Pittsburgh, Pa.

Hilles & Jones Co., Wilmington, Del.  
J. J. McCabe, 14 Day St., New York.  
New Doty Mfg. Co., Janesville, Wis.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Geo. E. Affleck, 107 Liberty St., N. Y.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Manning, Maxwell & Moore, 85 Liberty St., New York.

Marshall & Hueschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Boilers, Automobile—**

Janney Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

**Boiler Shells, Automobile—**

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Standard Welding Co., Cleveland, O.

**Boilers, House, Copper—**

E. B. Badger & Sons Co., Boston, Mass.  
Randolph-Cloves Co., Waterbury, Ct.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Boilers, House, Galvanized—**

L. O. Koven & Bro., 50 Cliff St., N. Y.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Boiler Sight Feed Attachments—**

Bancroft & Co., 306 Drexel Bldg., Philadelphia, Pa.

**Boilers, Portable—**

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.  
E. Keeler Co., Williamsport, Pa.

**MERCHANTS.**

Crane Co., Chicago, Ill.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

**Boilers, Seamless Drawn****Steel House—**

Pressed Steel Tank Co., Milwaukee, Wis.

**Boilers, Steam—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
Babcock & Wilcox Co., 85 Liberty St., New York.

Broomell, Schmidt & Steacy Co., York, Pa.

Brown Hoisting Mach. Co., Inc., Cleveland, O.

Cahall Sales Department, Pittsburgh, Pa.  
Thos. Carlin's Sons, Allegheny, Pa.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Clarendon Boiler Works, No. Clarendon, Pa.

Thomas P. Conard, 119 So. 4th St., Philadelphia, Pa.

Exeter Machine Works, Exeter, N. H.  
Hannan & Finton, Springfield, Mass.

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

E. Keeler Co., Williamsport, Pa.  
Lidgerwood Mfg. Co., 95 Liberty St., New York.

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Meehan Boiler & Construction Co., Lowellville, O.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Newport News Ship Building & Dry Dock Co., Newport News, Va.

F. R. Patch Mfg. Co., Rutland, Vt.  
Riter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
Southern Engine & Boiler Works, Jackson, Tenn.

Struthers, Wells & Co., Warren, Pa.

Taunton Locomotive Mfg. Co., Taunton, Mass.

Tudor Boiler Mfg. Co., Cincinnati, O.

Vilter Mfg. Co., Milwaukee, Wis.  
Robert Wetherill & Co., Chester, Pa.

Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.

Charles Behlen, 72 Trinity Pl., New York.

Browning Engineering Co., Cleveland, O.

Contractors' Equipment Co., Betz Bldg., Philadelphia, Pa.

Wm. P. Davis Machine Co., Rochester, N. Y.

Wm. J. Dunn, Fall River, Mass.

Charles E. Dustin Co., 11 Broadway, New York.

Barclay M. Everson, Pittsburgh, Pa.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Lovegrove & Co., Inc., 143-145 N. 3d St., Philadelphia, Pa.

F. B. Maxim, Boston, Mass.

McDowell & Co., Pittsburgh, Pa.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

Rossiter, McGovern & Co., 141 Broadway, New York.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

R. R. Sherman & Co., Boston, Mass.

Shook & Fletcher, Birmingham, Ala.

Thompson, Son & Co., 114 Liberty St., New York.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

E. H. Wachs Co., 158 Indiana St., Chicago, Ill.

Whitehead Machinery Co., Davenport, Ia.

E. O. Williams, 63 So. Canal St., Chicago, Ill.

C. O. Wormer Machine Co., Detroit, Mich.

**Boilers, Steam and Hot Water—**

Exeter Machine Works, Exeter, N. H.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

E. Keeler Co., Williamsport, Pa.

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

National Pipe Bending Co., New Haven, Ct.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Boilers, Wash—**

E. B. Badger & Sons Co., Boston, Mass.

Rome Mfg. Co., Rome, N. Y.

**Boilers with Copper Colls—**

L. O. Koven & Bro., 50 Cliff St., N. Y.

**Bolster Plates—**

(See Plates, Bolster.)

**Bolt and Nut Machinery—**

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

American Machinery Co., Willoughby, O.

Blake & Johnson, Waterbury, Ct.

Boynton & Plummer, Worcester, Mass.

H. B. Brown & Co., East Hampton, Ct.

Detrick & Harvey Machine Co., Baltimore, Md.

Fairbanks Co., 416 Broome St., New York.

Howard Iron Works, Buffalo, N. Y.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

Reliance Machine & Tool Co., Cleveland, O.

Standard Engineering Co., Ellwood City, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

Wells Bros & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**MERCHANTS.**

Geo. E. Affleck, 109 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, 55 Liberty St., New York.

Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

J. R. Vandyke Co., 8 Dey St., New York.

**Bolt Copper, Cutters, &c.—**

(See Copper, Cutters, &c.)

**Bolt Ends—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Middale, Ct.

Eastern Bolt & Nut Co., Providence, R. I.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Upon Nut Co., Cleveland, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

**Bolt Head Milling Machines—**  
(See Nut and Bolt Head Milling Machines.)

**Bolt Head Trimmers—**  
(See Trimmers, Bolt Head.)

**Bolt Iron—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Republic Iron & Steel Co., Chicago, Ill.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

Bourne-Wales Co., Cleveland, O.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

**Bolt Keys—**  
(See Keys, Nail, Bolt, Nut, &c.)

**Bolt Machinery, Stove and Carriage—**  
Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

**Bolt Pointing Machines—**  
Acme Machinery Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore, Md.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Bolts, Agricultural—**  
Clark Bros. Bolt Co., Middale, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Republic Iron & Steel Co., Chicago, Ill.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Upon Nut Co., Cleveland, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

**Bolts, Anchor or Toggle—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Isaac Church, Toledo, O.

Eastern Bolt & Nut Co., Providence, R. I.

Fort Pitt Forge Co., Pittsburgh, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hill & Griffith Co., New York, N. Y.

M. Lanz & Sons, Pittsburgh, Pa.

Samuel Hall's Sons, New York, N. Y.



- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
 Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.  
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 J. D. Smith Foundry Supply Co., Cleveland, O.
- Bolts, Barn Door—**  
 Arcade Mfg. Co., Freeport, Ill.  
 Enterprise Mfg. Co., Philadelphia, Pa.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Bolts, Billiard Table—**  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Shelton Co., Derby, Ct.
- Bolts, Blank—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Clark Bros. Bolt Co., Milldale, Ct.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Samuel Hall's Sons, 229-233 W. 10th St., New York.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Pittsburgh Mfg. Co., Pittsburgh, Pa.  
 Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Upson Nut Co., Cleveland, O.
- Bolts, Boiler Patch—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Chicago Screw Co., 2 No. Canal St., Chicago, Ill.  
 Cincinnati Screw & Tap Co., Cincinnati, O.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Samuel Hall's Sons, 229-233 W. 10th St., New York.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Illinois Screw Co., 20 So. Canal St., Chicago, Ill.  
 New Britain Hardware Mfg. Co., New Britain, Ct.  
 Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.  
 Rhode Island Tool Co., Providence, R. I.  
 Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.  
 Worcester Machine Screw Co., Worcester, Mass.
- Bolts, Boiler Stay—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Falls Hollow Staybolt Co., Cuyahoga Falls, O.  
 Sam'l Hall's Sons, 229-233 West 10th St., New York.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Lockhart Iron & Steel Co., Pittsburgh, Pa.  
 Pittsburgh Mfg. Co., Pittsburgh, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.
- Bolts, Brass and Bronze—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Clark Bros. Bolt Co., Milldale, Ct.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
- Samuel Hall's Sons, 229-233 W. 10th St., New York.  
 Wm. E. Haskell Mfg. Co., Pawtucket, R. I.  
 McKenna Bros. Brass Co., Pittsburgh, Pa.  
 New York Lock Co., Branford, Ct.  
 Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
 Riegler-Hauk Co., Cincinnati, O.  
 Steward & Romaine Mfg. Co., Philadelphia, Pa.  
 W. & J. Tiebout, 118 Chambers St., N. Y.  
 Waterbury Brass Co., Waterbury, Ct.
- Bolts, Bridge and Roof—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Berlin Construction Co., Berlin, Ct.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Fort Pitt Forge Co., Pittsburgh, Pa.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Pittsburgh Mfg. Co., Pittsburgh, Pa.  
 Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rockford Bolt Works, Rockford, Ill.  
 Upson Nut Co., Cleveland, O.
- Bolts, Carriage—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Clark Bros. Bolt Co., Milldale, Ct.  
 Cobb & Drew, Plymouth, Mass.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Milton Mfg. Co., Milton, Pa.  
 Franklin Moore Co., Winsted, Ct.  
 New Castle Forge & Bolt Co., New Castle, Pa.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rockford Bolt Works, Rockford, Ill.  
 Russell, Burdiss & Ward Bolt & Nut Co., Fort Chester, N. Y.  
 Shelton Co., Derby, Ct.  
 Upson Nut Co., Cleveland, O.
- Bolts, Copper—**  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Kilborn & Bishop Co., New Haven, Ct.
- Bolts, Countersunk—**  
 (See Bolts, Special, &c.)
- Bolts, Coupling—**  
 (See Bolts, Special.)
- Bolts, Cultivator and Guard**  
 Clark Bros. Bolt Co., Milldale, Ct.  
 Upson Nut Co., Cleveland, O.
- Bolts, Cupboard—**  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Yale & Towne Mfg. Co., 9-13 Murray St., New York.
- Bolts, Dash—**  
 Clark Bros. Bolt Co., Milldale, Ct.  
 Franklin Moore Co., Winsted, Ct.  
 Upson Nut Co., Cleveland, O.

**Bolts, Door—**

Aracade Mfg. Co., Freeport, Ill.  
Fanner Mfg. Co., Cleveland, O.  
Griffin Mfg. Co., Erie, Pa.  
Hardware Supply Co., Grand Rapids, Mich.

H. B. Ives Co., New Haven, Ct.  
Key Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stanley Works, New Britain, Ct.  
Taylor & Boggis Foundry Co., Cleveland, O.

A. C. Williams, Ravenna, O.  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Bolts, Double Awning—**  
M. Lanz & Sons, Pittsburgh, Pa.

**Bolts, Drift—**  
(See Spikes, Dock, Wharf, &c.)

**Bolts, Elevator—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Avery Stamping Co., Cleveland, O.  
Buhl Malleable Co., Detroit, Mich.

Clark Bros. Bolt Co., Milldale, Ct.  
W. J. Clark Co., Salem, O.  
Cobb & Drew, Plymouth, Mass.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Republic Iron & Steel Co., Chicago, Ill.  
Rockford Bolt Works, Rockford, Ill.  
Upson Nut Co., Cleveland, O.

**Bolts, Expansion, Single and Double—**  
Brohard Co., Hutchinson St. and Columbia Ave., Philadelphia, Pa.

Isaac Church, Toledo, O.  
City Forge & Iron Works, Dayton, O.

Eastern Bolt & Nut Co., Providence, R. I.  
F. H. Evans, Brooklyn, N. Y.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.  
McCabe Hanger Mfg. Co., 532-542 W. 23d St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Richards Mfg. Co., Aurora, Ill.  
A. C. Seaman, 1638 Hutchinson St., Philadelphia, Pa.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Steward & Romaine Mfg. Co., Philadelphia, Pa.  
Wilcox Mfg. Co., Aurora, Ill.

**Bolts, Extension—**  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Bolts, Eye—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Billings & Spencer Co., Hartford, Ct.  
Blakeslee Forging Co., Plantsville, Ct.

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.

Samuel Hall's Sons, 229-233 W. 10th St., New York.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Keystone Drop Forge Works, Chester, Pa.  
M. Lanz & Sons, Pittsburgh, Pa.

James McKay & Co., Pittsburgh, Pa.  
Parker Wire Goods Co., Worcester, Mass.

Republic Iron & Steel Co., Chicago, Ill.  
Rhode Island Tool Co., Providence, R. I.

Sargent & Co., 151 Leonard St., N. Y.  
Springfield Drop Forging Co., Springfield, Mass.

Strieby & Foot Co., Newark, N. J.  
W. & J. Tiebout, 118 Chambers St., N. Y.

Transue & Williams Co., Alliance, O.  
Upson Nut Co., Cleveland, O.

J. H. Williams & Co., Brooklyn, N. Y.  
Wire Goods Co., Worcester, Mass.

**Bolts, Fancy (Cone, Steeple, Elliptic, Thread, Body Loop, &c.)—**  
Eastern Bolt & Nut Co., Providence, R. I.

Franklin Moore Co., Winsted, Ct.  
Rhode Island Tool Co., Providence, R. I.

Upson Nut Co., Cleveland, O.  
(See also, Bolts, Special.)

**Bolts, Forged—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
M. Lanz & Sons, Pittsburgh, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.  
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.  
Russell, Burdall & Ward, Bolt & Nut Co., Port Chester, N. Y.

**Bolts, Foundation—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Eastern Bolt & Nut Co., Providence, R. I.  
Port Pitt Forge Co., Pittsburgh, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

M. Lanz & Sons, Pittsburgh, Pa.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.  
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

**Bolts, Galvanized—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
M. Lanz & Sons, Pittsburgh, Pa.

Republic Iron & Steel Co., Chicago, Ill.  
Rhode Island Tool Co., Providence, R. I.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Bolts, Guard—**  
(See Bolts, Cultivator.)

**Bolts, Hollow Stay—**  
Falls Hollow Staybolt Co., Cuyahoga Falls, O.

**Bolts, Hook—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.

M. Lanz & Sons, Pittsburgh, Pa.  
Pittsburgh Mfg. Co., Pittsburgh, Pa.  
Upson Nut Co., Cleveland, O.

**Bolts, King—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.

Richard Eccles Co., Auburn, N. Y.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Republic Iron & Steel Co., Chicago, Ill.

M. Seward & Son Co., New Haven, Ct.

Upson Nut Co., Cleveland, O.

**Bolts, Loom—**

Clark Bros. Bolt Co., Milldale, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Upson Nut Co., Cleveland, O.

**Bolts, Machine—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Buhl Malleable Co., Detroit, Mich.

Cincinnati Screw & Tap Co., Cincinnati, O.

Clark Bros. Bolt Co., Milldale, Ct.

Cobb & Drew, Plymouth, Mass.

Crane Co., Chicago, Ill.

Eastern Bolt & Nut Co., Providence, R. I.

Sam'l Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Milton Mfg. Co., Milton, Pa.

National Elastic Nut Co., Milwaukee, Wis.

New Castle Forge & Bolt Co., New Castle, Pa.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Reading Screw Co., Norristown, Pa.

Rhode Island Tool Co., Providence, R. I.

Rockford Bolt Works, Rockford, Ill.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Shelton Co., Derby, Ct.

Upson Nut Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

**Bolts, Planer Head—**

Chicago Screw Co., 2 N. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati, O.

Eastern Bolt & Nut Co., Providence, R. I.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

New Britain Hardware Mfg. Co., New Britain, Ct.

Niagara Screw Co., Buffalo, N. Y.

Rhode Island Tool Co., Providence, R. I.

Worcester Machine Screw Co., Worcester, Mass.

**Bolts, Plow—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Milldale, Ct.

Cobb & Drew, Plymouth, Mass.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Republic Iron & Steel Co., Chicago, Ill.

Rockford Bolt Works, Rockford, Ill.

Russell, Burdall & Ward Nut & Bolt Co., Port Chester, N. Y.

Shelton Co., Derby, Ct.

Upson Nut Co., Cleveland, O.

**Bolts, Reach—**

Franklin Moore Co., Winsted, Ct.

Clark Bros. Bolt Co., Milldale, Ct.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Upson Nut Co., Cleveland, O.

**Bolts, Ring—**

W & J. Tiebout, 118 Chambers St., N. Y.

**Bolts, Screen—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

**Bolts, Seat—**

Franklin Moore Co., Winsted, Ct.

Upson Nut Co., Cleveland, O.

**Bolts, Shackles—**

Blakeslee Forging Co., Plantsville, Ct.

Clark Bros. Bolt Co., Milldale, Ct.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Upson Nut Co., Cleveland, O.

**Bolts, Shutter—**

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Wrightsville Hdw. Co., Wrightsville, Pa.

**Bolts, Sink—**

American Screw Co., Providence, R. I.

Atlas Car & Mfg. Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.

Republic Iron & Steel Co., Chicago, Ill.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Shelton Co., Derby, Ct.

Upson Nut Co., Cleveland, O.

**Bolts, Sleigh Shoe—**

American Screw Co., Providence, R. I.

Franklin Moore Co., Winsted, Ct.

Republic Iron & Steel Co., Chicago, Ill.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Shelton Co., Derby, Ct.

Upson Nut Co., Cleveland, O.

**Bolts, Socket—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Bolts, Special (Coupling**

**Screen, Deck, Hanger,**

**Joint, Button Head, Bung**

**Head, Boiler, Headless,**

**Slotted Head, Hook Head,**

**Cube Head, &c.)—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Atlas Car & Mfg. Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.

Chicago Screw Co., 2 N. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati, O.

Clark Bros. Bolt Co., Milldale, Ct.

Cobb & Drew, Plymouth, Mass.

Eastern Bolt & Nut Co., Providence, R. I.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

Franklin Moore Co., Winsted, Ct.

M. Lanz & Sons, Pittsburgh, Pa.

Niagara Screw Co., Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Pittsburgh Mfg. Co., Pittsburgh, Pa.  
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.  
Rhode Island Tool Co., Providence, R. I.  
Rockford Bolt Works, Rockford, Ill.  
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.  
Upson Nut Co., Cleveland, O.  
Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.  
Worcester Machine Screw Co., Worcester, Mass.

**Bolts, Stove—**  
American Screw Co., Providence, R. I.  
Atlas Car & Mfg. Co., Cleveland, O.  
Cincinnati Screw & Tap Co., Cincinnati.  
Clark Bros. Bolt Co., Milldale, Ct.  
Cobb & Drew, Plymouth, Mass.  
Fanner Mfg. Co., Cleveland, O.  
Reading Screw Co., Norristown, Pa.  
Republic Iron & Steel Co., Chicago, Ill.  
Rockford Bolt Works, Rockford, Ill.  
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Shelton Co., Derby, Ct.  
Upson Nut Co., Cleveland, O.

**Bolts, Stud—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
Cincinnati Screw & Tap Co., Cincinnati.  
Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.  
Samuel Hall's Sons, 229-233 W. 10th St., New York.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
M. Lanz & Sons, Pittsburgh, Pa.  
Milton Mfg. Co., Milton, Pa.  
Pittsburgh Screw & Bolt Co., Pittsburgh.  
Republic Iron & Steel Co., Chicago, Ill.  
Rhode Island Tool Co., Providence, R. I.  
Upson Nut Co., Cleveland, O.  
Worcester Machine Screw Co., Worcester, Mass.

**Bolts, Tap—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.  
Samuel Hall's Sons, 229-233 W. 10th St., New York.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
Illinois Screw Co., 20 So. Canal St., Chicago, Ill.  
Milton Mfg. Co., Milton, Pa.  
Pittsburgh Screw & Bolt Co., Pittsburgh.  
Republic Iron & Steel Co., Chicago, Ill.  
Rhode Island Tool Co., Providence, R. I.  
Upson Nut Co., Cleveland, O.

**Bolts, Tire—**  
American Screw Co., Providence, R. I.  
Atlas Car & Mfg. Co., Cleveland, O.  
Clark Bros. Bolt Co., Milldale, Ct.  
Cobb & Drew, Plymouth, Mass.  
Franklin Moore Co., Winsted, Ct.  
Reading Screw Co., Norristown, Pa.  
Rockford Bolt Works, Rockford, Ill.  
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Shelton Co., Derby, Ct.  
Upson Nut Co., Cleveland, O.

**Bolts, Toggle—**  
(See Bolts, Anchor or Toggle.)  
**Bolts, Track—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.  
M. Lanz & Sons, Pittsburgh, Pa.  
National Elastic Nut Co., Milwaukee, Wis.  
Republic Iron & Steel Co., Chicago, Ill.  
Upson Nut Co., Cleveland, O.

**MERCHANTS.**  
Apex Equipment Co., 11 Broadway, N. Y.  
Bassett-Presley Co., Cleveland, O.  
Arthur Koppel, 66 Broad St., New York.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Bolts, Trunk and Sample Case—**  
R. C. Jenkinson & Co., Newark, N. J.  
J. H. Sessions & Son, Bristol, Ct.

**Bolts, Water Closet Indicator—**  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., New York.  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Bolts, Whiffletree—**  
Franklin Moore Co., Winsted, Ct.  
Upson Nut Co., Cleveland, O.

**Bolts, Window Spring—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

**Bolts, Window, Ventilating—**  
Sargent & Co., 151 Leonard St., N. Y.  
H. B. Ives Co., New Haven, Ct.

**Bolt Wire—**  
(See Wire, Bolt.)

**Bonds, Rail—**  
Morgan Spring Co., Worcester, Mass.  
**Bone, Case Hardening—**  
S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., Philadelphia, Pa.

**Bone Mills—**  
(See Mills, Bone.)

**Book Binders' Machinery—**  
R. H. Brown & Co., New Haven, Ct.  
Sigourney Tool Co., Hartford, Ct.

**Book Binder Wire—**  
(See Wire, Binding, Book Binder, &c.)

**Book, Paper and Card Racks—**  
(See Racks, Card, Book and Paper.)

**Books—**  
Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.  
David Williams Co., 232-238 William St., New York.

**Books, Loose Leaf—**  
Tengwall File & Ledger Co., Ravenswood Sta., Chicago, Ill.  
David Williams Co., 232-238 William St., New York.

**Books, Scrap—**  
Globe-Wernicke Co., Cincinnati, O.  
Tengwall File & Ledger Co., Ravenswood Sta., Chicago, Ill.

**Books, Weight Ticket—**

Standard Scale &amp; Supply Co., Pittsburgh, Pa.

**Boom Travelers—**

(See Travelers, Boom and Deck.)

**Booster Sets, Electric—**

Northern Electrical Mfg. Co., Madison, Wis.

**Boot Calks, Jacks—**

(See Calks, Jacks.)

**Boots and Sewer Connections—**Berger Mfg. Co., Canton, O.  
Garry Iron & Steel Co., Cleveland, O.**Boots, Elevator—**

Allis-Chalmers Co., Home Insurance

Bldg., Chicago, Ill.

Bethlehem Foundry &amp; Machine Co.,

South Bethlehem, Pa.

Borden &amp; Selleck Co., 48 Lake St., Chi-

cago, Ill.

H. W. Caldwell &amp; Son Co., Western Ave.

and 11th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Jeffrey Mfg. Co., Columbus, O.

Minneapolis Steel &amp; Machinery Co., Min-

neapolis, Minn.

**Boots, Interfering—**

Covert Mfg. Co., W. Troy, N. Y.

**Borers, Bung Hole—**

Chas. F. Elmes Engineering Works, Cor.

Morgan and Fulton Sts., Chicago, Ill.

Enterprise Co., Philadelphia, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

**Borers, Counter—**

Cleveland Twist Drill Co., Cleveland, O.

Kendrick &amp; Davis, Lebanon, N. H.

E. F. Reece Co., Greenfield, Mass.

**Boring and Facing Ma-**

chines—

Binsse Machine Co., Newark, N. J.

**Boring and Facing Ma-**

chines, Duplex Pump—

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

**Boring and Turning Mills—**

(See Mills, Boring and Turning.)

**Boring and Turning Mills,**

Steel Tire—

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

**Boring Bars—**

Charles F. Elmes Engineering Works, 253

Fulton St., Chicago, Ill.

**Boring Bars for Lathe**

Work—

H. B. Underwood &amp; Co., 1025 Hamilton

St., Philadelphia, Pa.

**Boring Bars for Locomotive**

Cylinder—

Baker Bros., Toledo, O.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Pedrick &amp; Ayer Co., 87 Liberty St., N. Y.

Wm. Sellers &amp; Co. (Inc.), Philadelphia,

Pa.

Stow Flexible Shaft Co., 26th &amp; Callow-

hill Sts., Philadelphia, Pa.

H. B. Underwood &amp; Co., 1025 Hamilton

St., Philadelphia, Pa.

**Boring Bars for Locomotive**

Cylinders, Portable—

H. B. Underwood &amp; Co., 1025 Hamilton

St., Philadelphia, Pa.

**Boring Machines, Car Box—**

Detrick &amp; Harvey Mch. Co., Baltimore.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

**Boring Machines, Carpen-**

ters—

Fox Machine Co., Grand Rapids, Mich.

Millers Falls Co., 28 Warren St., N. Y.

Snell Mfg. Co., Fiskdale, Mass.

**Boring Machines, Car**

Wheel—

Baker Bros., Toledo, O.

Bickford Drill &amp; Tool Co., Cincinnati, O.

Fairbanks Co., 416 Broome St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Wm. Sellers &amp; Co. (Inc.), Philadelphia.

**Boring Machines, Cylinder—**

Baker Bros., Toledo, O.

Bickford Drill &amp; Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Pedrick &amp; Ayer Co., 87 Liberty St., N. Y.

Wm. Sellers &amp; Co. (Inc.), Philadelphia.

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

**MERCHANTS.**

Hill, Clarke &amp; Co., Boston, Mass.

**Boring Machines, Gang—**

Williams, White Co., Moline, Ill.

**Boring Machines, Hori-**

zontal—

Binsse Machine Co., Newark, N. J.

**Boring Machines, Hub—**

(See Hub Boring Machines.)

**Boring Machines, Locomo-**

tive—

Baker Bros., Toledo, O.

Espin-Lucas Machine Works, Broad and

Noble Sts., Philadelphia, Pa.

**Boring Machines, Man**

Hole—

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

**Boring Machines, Sash and**

Blind—

Stow Flexible Shaft Co., 26th &amp; Callow-

hill Sts., Philadelphia, Pa.

**Boring Machines, Wood—**

Rand Drill Co., 128 Broadway, New York.

South Pittsburgh Iron Works, Claysville,

Pa.

S. A. Woods Machine Co., So. Boston,

Mass.

**Boring Tools, Metal and**

Wood—

Armstrong Bros. Tool Co., Chicago, Ill.

Keystone Mfg. Co., Buffalo, N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Reading Machine &amp; Tool Co., Reading,

Pa.

**Botanizing Drums—**

(See Drums, Botanizing.)

**Bottle Corking Machines—**

Hugo Reisinger, 11 Broadway, New York.

**Bottle Holders, Cham-**

pagne—

(See Holders, Bottle, Silver Plated.)

**Bottles, Steel—**

Avery Stamping Co., Cleveland, O.

National Tube Co., Pittsburgh, Pa.

**MERCHANTS.**

C. G. Eckstein, 249 Centre St., New York.

Janney, Steinmetz &amp; Co., Drexel Bldg.,

Philadelphia, Pa.

**Bottling Machinery—**

Vilter Mfg. Co., Milwaukee, Wis.

**Bottling Wire—**

(See Wire, Bottling, Book Binder, &amp;c.)

**Bottoms, Copper—**

Ansonia Brass &amp; Copper Co., 99 John St., New York.

Randolph-Cloves Co., Waterbury, Ct.

**Bowls, Berry, Fruit, Ice.****Sugar, &c., Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Bowls, Forged Separator—**

Avery Stamping Co., Cleveland, O.

**Bowls, Sugar, Nickel Plated—**

Rome Mfg. Co., Rome, N. Y.

**Bows, Ox—**

American Fork &amp; Hoe Co., Cleveland, O.

Iowa Farming Tool Co., Fort Madison, Iowa.

**Box Board Sawing and Fin-**

ishing Machinery—

Peter Gerlach Co., Cleveland, O.

**Box Chisels, &c.—**

(See Chisels, Box.)

**Boxes and Jars, Cigar, Sil-**

ver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

**Boxes, Adjustable Shaft—**

Mechanics Machine Co., Rockford, Ill.

**Boxes, Annealing—**

Meehan Boiler &amp; Construction Co., Lowellville, O.

**Boxes, Anger Bit—**

Tower &amp; Lyon Co., 95 Chambers St., New York.

**Boxes, Bait—**

Clark, Horrocks Co., Utica, N. Y.

**Boxes, Ball Bearing Shaft-**

ing—

Pressed Steel Mfg. Co., Ridge Ave. and Willow St., Philadelphia, Pa.

**Boxes, Cast Iron Waste—**

Bethlehem Foundry &amp; Machine Co., Bethlehem, Pa.

Geo. V. Cresson Co., 18th St. &amp; Allegheny Ave., Philadelphia, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Boxes, Coal—**

W. J. Clark Co., Salem, O.

**Boxes, Farrier Tool—**

Wells Bros. Co., Greenfield, Mass.

**Boxes, Fishing Tackle—**

Clark, Horrocks Co., Utica, N. Y.

**Boxes, Galvanized Steel**

Storage—

Stirling Blower &amp; Pipe Mfg. Co., Hartford, Ct.

**Boxes, Glove, Match, Pow-**

der, Soap, Stamp, &amp;c., Sil-

ver Plated—

International Silver Co., 9-13 Maiden Lane, New York.

**Boxes, Grain Dump—**

Louden Machinery Co., Fairfield, Ia.

**Boxes, Harrow Weight,**

Steel—

Avery Stamping Co., Cleveland, O.

**Boxes, Letter—**

Reading Hardware Co., Reading, Pa.

Yale &amp; Towne Mfg. Co., 9-13 Murray St., New York.

**Boxes, Mail—**

Forest City Foundry &amp; Mfg. Co., Cleve-

land, O.

Globe Machine &amp; Stamping Co., Cleve-

land, O.

W. C. Heller &amp; Co., Montclair, N. J.

Taylor &amp; Boggis Foundry Co., Cleveland.

**Boxes, Mailing—**

E. B. Estes &amp; Sons, 45-47 John St., N. Y.

**Boxes, Mail, Rural—**

Globe Machine &amp; Stamping Co., Cleve-

land, O.

**Boxes, Match, Aluminum—**

Seovill Mfg. Co., Waterbury, Ct.

**Boxes, Miter—**

Goodell Mfg. Co., Greenfield, Mass.

C. E. Jennings Co., 42 Murray St., N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Nicholls Mfg. Co., Ottumwa, Ia.

Smith &amp; Hemenway Co., 236 Broadway, New York.

Stanley Rule &amp; Level Co., New Brit-

ain, Ct.

Tower &amp; Lyon Co., 95 Chambers St., New York.

**Boxes, Nail—**

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

**Boxes, Nail and Tack—**

A. J. Phillips Co., Fenton, Mich.

**Boxes, Oil, Stove—**

Osborn Mfg. Co., Cleveland, O.

**Boxes, Paper—**

Jesse Jones Paper Box Co., 615-617 Com-

merce St., Philadelphia, Pa.

National Metal Edge Box Co., 619-623

Cherry St., Philadelphia, Pa.

**Boxes, Paper, Metal Edge—**

National Metal Edge Box Co., 619-623

Cherry St., Philadelphia, Pa.

**Boxes, Post Office Lock—**

Yale &amp; Towne Mfg. Co., 9-13 Murray St., New York.

**Boxes, Salt—**

Tucker &amp; Dorsey Mfg. Co., Indianapolis, Ind.

**Boxes, Shaft Bearing—**

Case Mfg. Co., Columbus, O.

Wickes Bros., Saginaw, Mich.

**Boxes, Shelf—**

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

A. H. Green, 22 Park Place, New York.

W. C. Heller &amp; Co., Montclair, N. J.

Jesse Jones Paper Box Co., 615-617 Com-

merce St., Philadelphia, Pa.

C. P. Moore, Ravenswood, W. Va.

National Metal Edge Box Co., 619-623

Cherry St., Philadelphia, Pa.

**Boxes, Shoe Blacking—**

Louis Sacks Iron Foundry, Newark, N. J.

**Boxes, Small Wood Pack-**

ing—

E. B. Estes &amp; Sons, 45-47 John St., N. Y.

A. H. Green, 22 Park Place, New York.

**Boxes, Steel Storage—**

Cleveland Wire Spring Co., Cleveland, O.

W. J. Clark Co., Salem, O.

Wm. B. Scaife &amp; Sons Co., Pittsburgh, Pa.

**Boxes, Steel Wall—**

(See Telegraph and Telephone.)

**Boxes, Stop Cock—**

Illinois Malleable Iron Co., 30-32 W. Mon-

roe St., Chicago, Ill.

**Boxes, Thimble Skein—**

(See Skeins, Thimble, and Boxes.)

**Boxes, Tin—**

Charles Mundt &amp; Sons, 441-447 Pearl St.,

New York.

Sidney Shepard &amp; Co., Buffalo, N. Y.

**Boxes, Tobacco, Aluminum—**

Scovill Mfg. Co., Waterbury, Ct.

**Boxes, Tool—**

Chas. H. Besly &amp; Co., 10-12 No. Canal

St., Chicago, Ill.

W. J. Clark Co., Salem, O.

**Boxes, Tote—**

Avery Stamping Co., Cleveland, O.

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

Kilbourne &amp; Jacobs Mfg. Co., Colum-

bus, O.

**Boxes, Tree—**

(See Guards, Tree.)

**Boxes, Turned Wood—**

E. B. Estes &amp; Sons, 45-47 John St., N. Y.

**Boxes, Twine—**

John Chastillon &amp; Sons, 85-93 Cliff St.,

New York.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

A. C. Williams, Ravenna, O.

Wire Goods Co., Worcester, Mass.

**Boxes, Valve—**

Illinois Malleable Iron Co., 30-32 W. Mon-

roe St., Chicago, Ill.

**Box Factory Machinery—**

S. A. Woods Machine Co., So. Boston,

Mass.

**MERCHANTS.**

Wickes Bros., Saginaw, Mich.

**Boxwood Rules—**

(See Rules, Boxwood.)

**Braces and Rail, Top—**

E. D. Clapp Mfg. Co., Auburn, N. Y.

**Braces, Arm—**

(See Telegraph and Telephone.)

**Braces, Bit—**

John S. Fray &amp; Co., Bridgeport, Ct.

Goodell-Fray Co., Greenfield, Mass.

John H. Graham &amp; Co., 113 Chambers

St., New York.

C. E. Jennings Co., 42 Murray St., N. Y.

H. H. Mayhew Co., Shelburne Falls, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

**Braces, Corner, Water****Closet Partition—**

Sargent &amp; Co., 151 Leonard St., N. Y.

**Braces, Extension—**

John S. Fray &amp; Co., Bridgeport, Ct.

Millers Falls Co., 28 Warren St., N. Y.

**Braces, Music Rack—**

Sabin Machine Co., Montpelier, Vt.

**Braces, Rudder—**

W. &amp; J. Tiebout, 118 Chambers St., N. Y.

**Braces, Scythe—**

Iowa Farming Tool Co., Fort Madison, Ia.

**Braces, Skate, Ankle—**

Samuel Winslow Skate Mfg. Co., Worces-

ter, Mass.

**Brackets and Fixtures,****Shade Roller—**

Stover Mfg. Co., Freeport, Ill.

**Bracket Saws—**

(See Saws, Scroll.)

**Brackets, Axe—**

W. &amp; J. Tiebout, 118 Chambers St., N. Y.

**Brackets, Extension—**

M. S. Brooks &amp; Sons, Chester, Ct.

**Brackets, Flower Pot—**

Columbia Grey Iron Casting Co., Colum-

bia, Pa.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Stover Mfg. Co., Freeport, Ill.

**Brackets, Folding—**

Griffin Mfg. Co., Erie, Pa.

**Brackets, Hand Rail—**

Arcade Mfg. Co., Freeport, Ill.

New York Lock Co., Branford, Ct.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Union Mfg. Co., New Britain, Ct.

Wilcox Mfg. Co., Aurora, Ill.

**Brackets, Lamp—**

Arcade Mfg. Co., Freeport, Ill.

Bevin Bros. Mfg. Co., E. Hampton, Ct.

Columbia Grey Iron Casting Co., Colum-

bia, Pa.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Stover Mfg. Co., Freeport, Ill.

**Brackets, Office, Counter,****&c.—**

(See Railing and Brackets, Office, Coun-

ter, &amp;c.)

**Brackets, &c., Plumbing—**

Barnes Mfg. Co., Mansfield, O.

Columbia Grey Iron Casting Co., Colum-

bia, Pa.

Griffin Mfg. Co., Erie, Pa.

Illinois Malleable Iron Co., 30-32 W. Mon-

roe St., Chicago, Ill.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. &amp; Foundry Co., So. Mil-

waukee, Wis.

Wrightsville Hardware Co., Wrightsville,

Pa.

**Brackets, Pole—**

(See Telegraph and Telephone Pole Sup-

plies.)

**Brackets, Rafter—**

Louden Machinery Co., Fairfield, Ia.

F. E. Myers &amp; Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

**Brackets, Roofing—**

Berger Bros. Co., 231-237 Arch St., Phila-

delphia, Pa.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Stanley Rule &amp; Level Co., New Britain, Ct.

**Brackets, Shelf—**

Arcade Mfg. Co., Freeport, Ill.

Atlas Mfg. Co., New Haven, Ct.

Wm. Bayley &amp; Sons Co., Milwaukee, Wis.

Columbia Grey Iron Casting Co., Colum-

bia, Pa.

Griffin Mfg. Co., Erie, Pa.  
McKinney Mfg. Co., Allegheny, Pa.  
Peck, Stow & Wilcox Co., 21 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-41 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stanley Works, New Britain, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

B. F. Sturtevant Co., Boston, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Brackets, Shovel, Hoe.**  
**Brake, Fork, &c.**

Adams Co., Dubuque, Ia.  
W. C. Heller & Co., Montclair, N. J.

**Brackets, Sink.**  
Panner Mfg. Co., Cleveland, O.

Griffin Mfg. Co., Erie, Pa.

**Brackets, Soap.**  
(See Household Articles, Wire.)

**Brackets, Window.**  
I. S. Spencer's Sons, Guilford, Ct.

**Brackets, Window Screen**  
**Corner.**

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

**Brad Awls.**  
(See Awls, Peg, Brad, &c.)

**Brads, Tacks, Finishing**  
**Nails, &c.**

(See Tacks, Brads, Finishing Nails, &c.)

**Braided Rope, Cotton, Linen, &c.**  
(See Rope, Braided, Cotton, Linen, &c.)

**Brake Chains, Shoes.**  
(See Chains, Shoes.)

**Brakes, Bicycle.**  
Bevin Bros. Mfg. Co., E. Hampton, Ct.

**Brakes, Coaster Bicycle.**  
John H. Graham & Co., 113 Chambers St., New York.

**Brakes, Cornice.**  
Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.  
J. M. Robinson Mfg. Co., Cincinnati, O.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.

**Brakes, Electric.**  
Electric Controller & Supply Co., Cleveland, O.

**Brakes, Magnetic Friction.**  
Electric Controller & Supply Co., Cleveland, O.

**Brads, Burning.**  
George M. Ness, 61 Fulton St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.  
R. Woodman Mfg. & Supply Co., Boston, Mass.

**Brands, Stock Marking.**  
M. J. Bartley & Son, 196 S. Clark St., Chicago, Ill.

**Brass and Copper Rods.**  
Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
McKenna Bros. Brass Co., Pittsburgh, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.  
Randolph-Clowes Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Brass Bedsteads, Bolts, &c.**  
(See Bedsteads, Bolts, &c.)

**Brass, Brazing.**  
Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.  
Scovill Mfg. Co., Waterbury, Ct.

**Brass, Coated Sheet Zinc.**  
**Polished.**

American Nickeloid & Mfg. Co., Peru, Ill.

**Brass, Embossed or Figured.**  
Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
Waterbury Brass Co., Waterbury, Ct.

**Brasses, Car.**  
Magnolia Metal Co., 511 W. 13th St., New York.

**MERCHANTS.**  
J. J. Ryan & Co., 66-74 W. Monroe St., Chicago, Ill.

**Brass Finishers.**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

**Brass Finishing Machinery.**  
Drees Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
Springfield Machine Tool Co., Springfield, O.

**MERCHANTS.**  
Hill, Clarke & Co., Boston, Mass.

**Brass, Hoop.**  
Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Brass, Ornamental.**  
(See Iron and Brass, Ornamental.)

**Brass, Perforated Sheet.**  
Harrington & King Perforating Co., 234 N. Union St., Chicago, Ill.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

**Brass Quadrants, Skylight.**  
(See Quadrants, Brass Skylight.)

**Brass, Roll and Sheet.**  
Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
McKenna Bros. Brass Co., Pittsburgh, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.  
Randolph-Clowes Co., Waterbury, Ct.

Scovill Mfg. Co., Waterbury, Ct.  
Waterbury Brass Co., Waterbury, Ct.

**Brass, Rule (Printers).**  
Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Brass Shells, Blank, Seamless and Shot.**  
(See Shells.)

**Brass, Sign or Engravers.**  
Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
McKenna Bros. Brass Co., Pittsburgh, Pa.

Randolph-Clowes Co., Waterbury, Ct.

**Brass, Spring.**  
Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Brass, White.**  
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Paul & Reeves & Son, Philadelphia, Pa.

**Brass Working Tools.**  
(See Tools, Brass Working.)

**Brazers.**  
(See Furnaces, Brazing.)



**Boxes, Thimble Skein—**

(See Skeins, Thimble, and Boxes.)

**Boxes, Tin—**

Charles Mundt &amp; Sons, 441-447 Pearl St., New York.

Sidney Shepard &amp; Co., Buffalo, N. Y.

**Boxes, Tobacco, Aluminum—**

Scovill Mfg. Co., Waterbury, Ct.

**Boxes, Tool—**

Chas. H. Besly &amp; Co., 10-12 No. Canal St., Chicago, Ill.

W. J. Clark Co., Salem, O.

**Boxes, Tote—**

Avery Stamping Co., Cleveland, O.

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

Kilbourne &amp; Jacobs Mfg. Co., Columbus, O.

**Boxes, Tree—**

(See Guards, Tree.)

**Boxes, Turned Wood—**

E. B. Estes &amp; Sons, 45-47 John St., N. Y.

**Boxes, Twine—**

John Chatillon &amp; Sons, 85-93 Cliff St., New York.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

A. C. Williams, Ravenna, O.

Wire Goods Co., Worcester, Mass.

**Boxes, Valve—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Box Factory Machinery—**

S. A. Woods Machine Co., So. Boston, Mass.

**MERCHANTS.**

Wickes Bros., Saginaw, Mich.

**Boxwood Rules—**

(See Rules, Boxwood.)

**Braces and Rail, Top—**

E. D. Clapp Mfg. Co., Auburn, N. Y.

**Braces, Arm—**

(See Telegraph and Telephone.)

**Braces, Bit—**

John S. Fray &amp; Co., Bridgeport, Ct.

Goodell-Pratt Co., Greenfield, Mass.

John H. Graham &amp; Co., 113 Chambers St., New York.

O. E. Jennings Co., 42 Murray St., N. Y.

H. H. Mayhew Co., Shelburne Falls, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

**Braces, Corner, Water****Closet Partition—**

Sargent &amp; Co., 151 Leonard St., N. Y.

**Braces, Extension—**

John S. Fray &amp; Co., Bridgeport, Ct.

Millers Falls Co., 28 Warren St., N. Y.

**Braces, Music Rack—**

Sabin Machine Co., Montpelier, Vt.

**Braces, Rudder—**

W. &amp; J. Tiebout, 118 Chambers St., N. Y.

**Braces, Scythe—**

Iowa Farming Tool Co., Fort Madison, Ia.

**Braces, Skate, Ankle—**

Samuel Winslow Skate Mfg. Co., Worcester, Mass.

**Brackets and Fixtures,****Shade Roller—**

Stover Mfg. Co., Freeport, Ill.

**Bracket Saws—**

(See Saws, Scroll.)

**Brackets, Axe—**

W. &amp; J. Tiebout, 118 Chambers St., N. Y.

**Brackets, Extension—**

M. S. Brooks &amp; Sons, Chester, Ct.

**Brackets, Flower Pot—**

Columbia Grey Iron Casting Co., Columbia, Pa.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Stover Mfg. Co., Freeport, Ill.

**Brackets, Folding—**

Griffin Mfg. Co., Erie, Pa.

**Brackets, Hand Rail—**

Arcade Mfg. Co., Freeport, Ill.

New York Lock Co., Branford, Ct.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Union Mfg. Co., New Britain, Ct.

Wilcox Mfg. Co., Aurora, Ill.

**Brackets, Lamp—**

Arcade Mfg. Co., Freeport, Ill.

Beyn Bros. Mfg. Co., E. Hampton, Ct.

Columbia Grey Iron Casting Co., Columbia, Pa.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Stover Mfg. Co., Freeport, Ill.

**Brackets, Office, Counter,****&c.—**

(See Railing and Brackets, Office, Counter, &amp;c.)

**Brackets, &c., Plumbing—**

Barnes Mfg. Co., Mansfield, O.

Columbia Grey Iron Casting Co., Columbia, Pa.

Griffin Mfg. Co., Erie, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. &amp; Foundry Co., So. Milwaukee, Wis.

Wrightsville Hardware Co., Wrightsville, Pa.

**Brackets, Pole—**

(See Telegraph and Telephone Pole Supplies.)

**Brackets, Rafter—**

Louden Machinery Co., Fairfield, Ia.

F. E. Myers &amp; Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

**Brackets, Roofing—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Stanley Rule &amp; Level Co., New Britain, Ct.

**Brackets, Stair—**

Arcade Mfg. Co., Freeport, Ill.

Atlas Mfg. Co., New Haven, Ct.

Wm. Bayley &amp; Sons Co., Milwaukee, Wis.

Columbia Grey Iron Casting Co., Columbia, Pa.

Griffin Mfg. Co., Erie, Pa.  
McKinney Mfg. Co., Allegheny, Pa.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

B. F. Sturtevant Co., Boston, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Brackets, Shovel, Hoe,**

**Rake, Fork, &c.—**

Adams Co., Dubuque, Ia.  
W. C. Heller & Co., Montclair, N. J.

**Brackets, Sink—**

Fanner Mfg. Co., Cleveland, O.

Griffin Mfg. Co., Erie, Pa.

**Brackets, Soap—**

(See Household Articles, Wire.)

**Brackets, Window—**

I. S. Spencer's Sons, Guilford, Ct.

**Brackets, Window Screen**

**Corner—**

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Brad Awls—**

(See Awls, Peg, Brad, &c.)

**Brads, Tacks, Finishing**

**Nails, &c.—**

(See Tacks, Brads, Finishing Nails, &c.)

**Braided Rope, Cotton, Lin-**

**en, &c.—**

(See Rope, Braided, Cotton, Linen, &c.)

**Brake Chains, Shoes—**

(See Chains, Shoes.)

**Brakes, Bicycle—**

Bevin Bros. Mfg. Co., E. Hampton, Ct.

**Brakes, Coaster Bicycle—**

John H. Graham & Co., 113 Chambers St., New York.

**Brakes, Cornice—**

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

J. M. Robinson Mfg. Co., Cincinnati, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

**Brakes, Electric—**

Electric Controller & Supply Co., Cleve-

land, O.

**Brakes, Magnetic Friction—**

Electric Controller & Supply Co., Cleve-

land, O.

**Brands, Burning—**

George M. Case, 61 Fulton St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

R. Woodman Mfg. & Supply Co., Boston, Mass.

**Brands, Stock Marking—**

M. J. Bartlett & Son, 196 S. Clark St.,

Chicago, Ill.

**Brass and Copper Rods—**

Ansonia Brass & Copper Co., 99 John St.,

New York.

Bridgeport Brass Co., Bridgeport, Ct.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Randolph-Clowes Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Brass Bedsteads, Bolts, &c.—**

(See Bedsteads, Bolts, &c.)

**Brass, Brasing—**

Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Scovill Mfg. Co., Waterbury, Ct.

**Brass, Coated Sheet Zinc.**

**Polished—**

American Nickeloid & Mfg. Co., Peru, Ill.

**Brass, Embossed or Fig-**

**ured—**

Ansonia Brass & Copper Co., 99 John St.,

New York.

Bridgeport Brass Co., Bridgeport, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Brasses, Car—**

Magnolia Metal Co., 511 W. 13th St.,

New York.

**MERCHANTS.**

J. J. Ryan & Co., 68-74 W. Monroe St.,

Chicago, Ill.

**Brass Finishers—**

Acorn Brass Mfg. Co., 206 Fulton St.,

Chicago, Ill.

**Brass Finishing Ma-**

**chinery—**

Dreeses Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Pratt & Whitney Co., Hartford, Ct.

Springfield Machine Tool Co., Spring-

field, O.

**MERCHANTS.**

Hill, Clarke & Co., Boston, Mass.

**Brass, Hoop—**

Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Brass, Ornamental—**

(See Iron and Brass, Ornamental.)

**Brass, Perforated Sheet—**

Harrington & King Perforating Co., 224

N. Union St., Chicago, Ill.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

**Brass Quadrants, Skylight—**

(See Quadrants, Brass Skylight.)

**Brass, Roll and Sheet—**

Ansonia Brass & Copper Co., 99 John St.,

New York.

Bridgeport Brass Co., Bridgeport, Ct.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Randolph-Clowes Co., Waterbury, Ct.

Scovill Mfg. Co., Waterbury, Ct.

**Brass, Rule (Printers)—**

Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Brass Shells, Blank, Seam-**

**less and Shot—**

(See Shells.)

**Brass, Sign or Engravers—**

Ansonia Brass & Copper Co., 99 John St.,

New York.

Bridgeport Brass Co., Bridgeport, Ct.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Randolph-Clowes Co., Waterbury, Ct.

**Brass, Spring—**

Bridgeport Brass Co., Bridgeport, Ct.

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Brass, White—**

Bridgeport Deoxidized Bronze & Metal

Co., Bridgeport, Ct.

Paul S. Reeves & Son, Philadelphia, Pa.

**Brass Working Tools—**

(See Tools, Brass Working.)

**Brazers—**

(See Furnaces, Brazing.)

**Brasing, to Order—**  
Reading Machine & Tool Co., Reading,  
Pa.

Reading Standard Cycle Mfg. Co., Read-  
ing, Pa.

**Bread Baskets—**  
(See Baskets, Silver Plated.)

**Bread Coolers—**  
(See Kitchen Articles, Wire.)

**Breakers, Ice—**  
Harrison Safety Boiler Works, 3194 N. 17th  
St., Philadelphia, Pa.  
C. E. Jennings Co., 42 Murray St., N. Y.  
North Bros. Mfg. Co., American St. &  
Lehigh Ave., Philadelphia, Pa.

**Breakers, Pig Iron—**  
Brown Hoisting Machinery Co., Cleve-  
land, O.

**Breakers, Skull—**  
Thomas Carlin's Sons, Allegheny, Pa.

**Breaks, Peg—**  
Louis Sachs Iron Foundry, Newark, N. J.

**Breast Drills—**  
(See Drills, Breast.)

**Brewery Machinery—**  
Bethlehem Foundry & Machine Co., South  
Bethlehem, Pa.  
Vilter Mfg. Co., Milwaukee, Wis.

**Brick Acid Proof—**  
Ostrander Fire Brick Co., Troy, N. Y.

**Brick, Building—**  
Portsmouth Harbison-Walker Co., Ports-  
mouth, O.

**Brick, Chemical Works—**  
Ostrander Fire Brick Co., Troy, N. Y.  
Queen's Run Fire Brick Co., Lock Haven,  
Pa.

**Brick Chisels, Drills, &c.—**  
(See Chisels, Drills, &c.)

**Brick, Fire—**  
Cyrus Borgner, 23d St. above Race, Phil-  
adelphia, Pa.

Henry Maurer & Son, 420 East 23d St.,  
New York.

Ostrander Fire Brick Co., Troy, N. Y.  
Portsmouth Harbison-Walker Co., Ports-  
mouth, O.

Presbrey Fire Brick Works, Taunton,  
Mass.

Queen's Run Fire Brick Co., Lock Haven,  
Pa.

J. D. Smith Foundry Supply Co., Cleve-  
land, O.

M. D. Valentine & Bro., Woodbridge,  
N. J.

**MERCHANTS.**  
Walter Graham, Harrison Bldg., Phila-  
delphia, Pa.

C. B. Houston & Co., Girard Trust Bldg.,  
Philadelphia, Pa.

S. Obermayer Co., Cincinnati, O.  
J. W. Parson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.

Shook & Fletcher, Birmingham, Ala.  
**Brick, Glass Works—**  
Ostrander Fire Brick Co., Troy, N. Y.

Portsmouth Harbison-Walker Co., Ports-  
mouth, O.  
Queen's Run Fire Brick Co., Lock Haven,  
Pa.

M. D. Valentine & Bro., Woodbridge,  
N. J.

**Brick, Hollow—**  
Henry Maurer & Son., 420 East 23d St.,  
New York.

Presbrey Fire Brick Works, Taunton,  
Mass.

**Brick Machinery—**  
Thos. Carlin's Sons, Allegheny, Pa.  
Chambers Bros. Co., 52d St. below Lan-  
caster Ave., Philadelphia, Pa.  
Eastern Machinery Co., New Haven, Ct.  
Turner, Vaughn & Taylor Co., Cuyahoga  
Falls, O.  
Tyrone Foundry & Machine Co., Tyrone,  
Pa.

**Bricks, Emery—**  
Chicago Wheel & Mfg. Co., 39-45 W. Ran-  
dolph St., Chicago, Ill.  
Norton Emery Wheel Co., Worcester, Mass.

**Brick, Stove Fire—**  
Presbrey Fire Brick Works, Taunton, Mass.  
M. D. Valentine & Bro., Woodbridge,  
N. J.

**Bridge Bolts, Flooring,  
&c.—**  
(See Bolts, Flooring.)

**Bridge Machinery—**  
Bertsch & Co., Cambridge City, Ind.  
Cincinnati Punch & Shear Co., Cincin-  
nati, O.  
Cleveland Punch & Shear Works, Cleve-  
land, O.

Hilles & Jones Co., Wilmington, Del.  
J. J. McCabe, 14 Dey St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Wm. Sellers & Co. (Inc.), Philadelphia,  
Pa.

Vulcan Iron Works, 59 Milwaukee Ave.,  
Chicago, Ill.

Wickes Bros., Saginaw, Mich.

**MERCHANTS.**  
Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.

**Bridge Pins—**  
Columbia Bridge Co., Pittsburgh, Pa.

Finished Steel Co., Youngstown, O.

**Bridges—**  
(See Buildings and Bridges.)

**Bridges, Suspension—**  
A. Leschen & Sons Rope Co., St. Louis,  
Mo.

**Bridle Bits—**  
(See Bits, Bridle.)

**Brine Hooks—**  
(See Hooks, Brine.)

**Briquetting Machinery—**  
Tyrone Foundry & Machine Co., Tyron-  
Pa.

**Broilers—**  
Dangler Stove & Mfg. Div., Am. Stov-  
Co., Cleveland, O.

Edward Darby & Sons, 233-235 Arch &  
Philadelphia, Pa.

Kilbourne Mfg. Co., Fair Haven, Vt.  
Fred. J. Meyers Mfg. Co., Hamilton,

Novelty Mfg. Co., Jackson, Mich.  
Parker Wire Goods Co., Worcester, )

Schneider & Trenkamp Division Ame  
Stove Co., Cleveland, O.

Sidney Shepard & Co., Buffalo, N. Y.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Broilers, Electric—**  
United Electric Heating Co.,  
Mich.

**Brokers, Iron and Steel—**  
(See Iron and Steel Brokers a  
chants.)

**Bronze, Aluminum—**  
Bridgeport Brass Co., Bridgeport, Ct.  
**Bronze Bolts, Butts, &c.—**  
(See Bolts, Butts, &c.)  
**Bronze Forgings, Manganese—**  
(See Forgings, Manganese Bronze.)  
**Bronze, Manganese—**  
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.  
Wm. Crump & Sons Ship & Engine Building Co., Philadelphia, Pa.  
Crescent-Phosphorized Metal Co., Philadelphia, Pa.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
**Bronze Metal—**  
Paul S. Reeves & Son, Philadelphia, Pa.  
Ansonia Brass & Copper Co., 99 John St., New York.  
Chas. H. Besly & Co., 10-12 No. Canal St., Chicago, Ill.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Plum & Atwood Mfg. Co., Waterbury, Ct.  
Paul S. Reeves & Son, Philadelphia, Pa.  
Scovill Mfg. Co., Waterbury, Ct.  
**MERCHANTS.**  
Arthur T. Rutter & Co., 256 Broadway, New York.  
**Bronze, Phosphor—**  
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.  
Crescent-Phosphorized Metal Co., Philadelphia, Pa.  
Nolte Brass Co., Springfield, O.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Paul S. Reeves & Son, Philadelphia, Pa.  
**MERCHANTS.**  
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.  
**Bronze Powders—**  
Devos & Reynolds Co., 176 Randolph St., Chicago, Ill.  
Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.  
**Bronze, Roll and Sheet—**  
Ansonia Brass & Copper Co., 99 John St., New York.  
Chas. H. Besly & Co., 10-12 No. Canal St., Chicago, Ill.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Randolph-Cloves Co., Waterbury, Ct.  
Paul S. Reeves & Son, Philadelphia, Pa.  
Waterbury Brass Co., Waterbury, Ct.  
**Bronzes, Ornamental—**  
Goodwin & Kintz Co., Winsted, Ct.  
**Broom Holders, Racks—**  
(See Household Articles, Wire.)  
**Brooms, Steel, Wire, Fiber, &c.—**  
Osborn Mfg. Co., Cleveland, O.  
J. D. Smith Foundry Supply Co., Cleveland, O.  
Star Expansion Bolt Co., 147-149 Cedar St., New York.  
**Brooms, Track—**  
Osborn Mfg. Co., Cleveland, O.  
**Brush, Copper—**  
(See Copper, Commutator Brush.)  
**Brushes, Artists'—**  
Devos & Reynolds Co., 176 Randolph St., Chicago, Ill.  
**Brushes, Billiard Table—**  
Osborn Mfg. Co., Cleveland, O.

**Brushes, Butchers', Packers'—**  
John Chatillon & Son, 85 Cliff St., N. Y.  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Carbon Commutator—**  
General Electric Co., Schenectady, N. Y.  
**Brushes, Electroplating—**  
Hanson & Van Winkle Co., Newark, N. J.  
Osborn Mfg. Co., Cleveland, O.  
Zucker & Levitt & Loeb Co., 526-530 West 25th St., New York.  
**Brushes, Foundry—**  
Osborn Mfg. Co., Cleveland, O.  
J. D. Smith Foundry Supply Co., Cleveland, O.  
**Brushes, Furnace and Heater—**  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Machine—**  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Paint, Varnish, &c.—**  
Devos & Reynolds Co., 176 Randolph St., Chicago, Ill.  
John Lucas & Co., Race and Fourth Sts., Philadelphia, Pa.  
**Brushes, Pipe—**  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Scrub—**  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.  
**Brushes, Steel Wire—**  
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.  
Edward Darby & Sons, 233 Arch St., Philadelphia, Pa.  
Estey Wire Works Co., 59 Fulton St., New York.  
Osborn Mfg. Co., Cleveland, O.  
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.  
J. D. Smith Foundry Supply Co., Cleveland, O.  
**Brushes, Tumbler—**  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Whitewash, Horse, Shoe, &c.—**  
Osborn Mfg. Co., Cleveland, O.  
Wright Wire Co., Worcester, Mass.  
**Brushes, Wire, Casting, Gearing, Flue, &c.—**  
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.  
Cleveland Facing Mill Co., Cleveland, O.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
Estey Wire Works Co., 59 Fulton St., N. Y.  
Fred. J. Meyers Mfg. Co., Hamilton, O.  
Osborn Mfg. Co., Cleveland, O.  
J. D. Smith Foundry Supply Co., Cleveland, O.  
Wright Wire Co., Worcester, Mass.  
**Brushes, Wire, Horse, Hair, Cattle, &c.—**  
Osborn Mfg. Co., Cleveland, O.  
**Brushes, Wire Wheel—**  
S. Obermayer Co., Cincinnati, O.  
Osborn Mfg. Co., Cleveland, O.  
**Bucket Blocks, Pumps—**  
(See Blocks, Pumps.)  
**Buckets and Cans, Elevator—**  
Avery Stamping Co., Cleveland, O.  
C. O. Bartlett & Snow Co., Cleveland, O.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Borden & Selleck, 48 Lake St., Chicago, Ill.

Brown Hoisting Machinery Co., Cleveland, O.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

W. J. Clark Co., Salem, O.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

I. & E. Greenwald Co., Cincinnati, O.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, O.

Link Belt Engineering Co., Nicetown, Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

St. Joseph Pump & Mfg. Co., St. Joseph, Mo.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Buckets, Bored Well—**

**Buckets, Chain Pump, Rubber—**

Cleveland Galvanizing Wks., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Union Mfg. Co., New Britain, Ct.

**Buckets, Elevator Pump—**

Cleveland Galvanizing Works, Cleveland.

**Buckets, Factory—**

W. J. Clark Co., Salem, O.

Osborn Mfg. Co., Cleveland, O.

J. D. Smith Foundry Supply Co., Cleveland, O.

**Buckets, Fire—**

W. J. Clark Co., Salem, O.

Howard & Morse, 45 Fulton St., New York.

**Buckets, Hoisting—**

C. O. Bartlett & Snow Co., Cleveland, O.

Thomas Carlin's Sons, Allegheny, Pa.

W. J. Clark Co., Salem, O.

Fairbanks Co., 416 Broome St., New York.

Garry Iron & Steel Co., Cleveland, O.

C. W. Hunt Co., West New Brighton, N. Y.

A. Leschen & Sons Rope Co., St. Louis, Mo.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. B. Pollock Co., Youngstown, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

#### MERCHANTS.

Browning Engineering Co., Cleveland, O.

Contractors' Equipment Co., Betz Building, Philadelphia, Pa.

**Buckets, Minnow—**

Clark, Horrocks Co., Utica, N. Y.

**Buckets, Ore—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

C. O. Bartlett & Snow Co., Cleveland, O.

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Brown Hoisting Machinery Co., Cleveland, O.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. J. Clark Co., Salem, O.

Fairbanks Co., 416 Broome St., New York.

Garry Iron & Steel Co., Cleveland, O.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

A. Leschen & Sons Rope Co., St. Louis, Minn.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Wm. B. Pollock Co., Youngstown, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Buckets, Pipe—**

Wm. B. Pollock Co., Youngstown, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Buckets, Self Dumping—**

Brown Hoisting Machinery Co., Inc., Cleveland, O.

W. J. Clark Co., Salem, O.

E. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., New York.

Garry Iron & Steel Co., Cleveland, O.

A. Leschen & Sons Rope Co., St. Louis, Mo.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

H. C. Slingsby, 23 Broadway, New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Buckets, Wooden Well—**

Richmond Cedar Works, Richmond, Va.

**Buckle Machinery, Wire—**

E. J. Manville Machine Co., Waterbury, Ct.

**Buckles, Back Band—**

Stanley Works, New Britain, Ct.

**Buckles, Belt—**

North & Judd Mfg. Co., New Britain, Ct.

**Buckles, Halter and Trace—**

Covert's Saddlery Works, Farmer, N. Y.

**Buckles, Harness—**

North & Judd Mfg. Co., New Britain, Ct.

**Buckles, Pipe—**

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Buckles, Trunk and Bag—**

H. C. Jenkinson & Co., Newark, N. J.

**Buckles, Wire—**

Spencer Wire Co., Worcester, Mass.

**Bucks, Wood Saw—**

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.

Tucker and Dorsey Mfg. Co., Indianapolis, Ind.

**Buffers, Blacksmiths—**

Heller Bros. Co., Newark, N. J.

**Buffers, Broom—**

Edson Mfg. Co., Boston, Mass.

**Buffers, Sliding Door—**

Perfect Sliding Door Co., Bridgeport, Ct.

**Buffer Steels—**

(See Steels, Buffer and Scraper.)

**Buffing and Polishing Machines—**

C. H. Besly & Co., 10-12 No. Canal St., Chicago, Ill.

J. G. Blount & Co., Everett, Mass.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Builders' Iron Foundry, Providence, R. I.

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Cutter, Wood & Stevens Co., Boston, Mass.

Diamond Machine Co., Providence, R. I.

Fairbanks Co., 416 Broome St., New York.

Garvin Mch. Co., Spring and Varick Sta., New York.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Hannan & Finton, Springfield, Mass.  
 Hanson & Van Winkle Co., Newark, N. J.  
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Northampton Emery Wheel Co., Leeds, Mass.  
 Northern Electrical Mfg. Co., Madison, Wis.  
 Safety Emery Wheel Co., Springfield, O.  
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
 Slotkin & Praglin, 210-212 Canal St., N. Y.  
 Springfield Mfg. Co., Bridgeport, Ct.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
 Waterbury Machine Co., Waterbury, Ct.  
 Watson-Stillman Co., 204-210 East 43d St., New York.  
 Webster & Perks Tool Co., Springfield, O.  
 Zucker & Levett & Loeb Co., 525-530 West 25th St., New York.

**MERCHANTS.**

George E. Affleck, 107 Liberty St., N. Y.  
 J. H. Dawson Machinery Co., 39-41 So. Canal St., Chicago, Ill.  
 Hill, Clarke & Co., Boston, Mass.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 Sterling Emery Wheel Mfg. Co., Tiffin, O.  
 Wickes Bros., Saginaw, Mich.

**Buffing and Polishing Machines, Electrical—**  
 Bridgeport Safety Emery Wheel Co., Inc., Bridgeport, Ct.

**Buffing Supplies—**  
 (See Polishing and Buffing Supplies.)

**Bufs—**  
 Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
 Diamond Machine Co., Providence, R. I.  
 Hanson & Van Winkle Co., Newark, N. J.  
 Zucker & Levett & Loeb Co., 525-530 West 25th St., New York.

**Buggies—**  
 (See Vehicles, Buggies, Carriages, &c.)

**Buggies, Ore. Coal, Cinder, &c.—**  
 Thomas Carlin's Sons, Allegheny, Pa.  
 Sheffield Car Co., Three Rivers, Mich.

**Building Fronts—**  
 (See Fronts, Building, Sheet Iron.)

**Building Material, Fire Proof—**  
 International Fence & Fireproofing Co., Columbus, O.  
 Henry Maurer & Son, 420 East 23d St., New York.

**Building Minerals, Fire Proof—**  
 American Asbestos Co., Terre Haute, Ind.

**Buildings and Bridges—**  
 Allentown Rolling Mills, Allentown, Pa.  
 American Bridge Co., 100 Broadway, N. Y.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Berlin Construction Co., Berlin, Ct.  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Boston Bridge Works, Boston, Mass.  
 Columbia Bridge Co., Pittsburgh, Pa.  
 Cooper-Wigand-Cooke Co., 152-154 W. 34th St., New York.  
 J. B. & J. M. Cornell, 239 11th Ave., New York.

Donovan Wire & Iron Co., Toledo, O.  
 John Eichleay, Jr. Co., Pittsburgh, Pa.  
 Forest City Steel & Iron Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.  
 W. B. Kratzer & Co., Pittsburgh, Pa.

M. Lanz & Sons, Pittsburgh, Pa.  
 A. Leschen & Sons Rope Co., St. Louis.

McClintic-Marshall Construction Co., Pittsburgh, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.

National Iron & Wire Co., Cleveland, O.  
 Passaic Steel Co., Paterson, N. J.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

South Pittsburgh Iron Works, Claysville, Pa.

Stewart Iron Works, Cincinnati, O.  
 Van Dorn Iron Works Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.  
 West Virginia Bridge & Construction Co., Wheeling, W. Va.

**Buildings, Election Booth—**  
 Forest City Steel & Iron Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.  
 Van Dorn Iron Works Co., Cleveland, O.

**Buildings, Horticultural—**  
 Lord & Burnham Co., Irvington-on-Hudson, N. Y.

**Bulldozers—**  
 Ajax Mfg. Co., Cleveland, O.

American Machinery Co., Willoughby, O.  
 Fischer Foundry & Machine Co., Pittsburgh, Pa.

National Machinery Co., Tiffin, O.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pittsburgh Mfg. Co., Pittsburgh, Pa.  
 Williams, White & Co., Moline, Ill.

**Bull Leaders, Rings—**  
 (See Leaders, Rings.)

**Bull's, Dead Eyes, &c.—**  
 (See Eyes, Dead, Bull's, &c.)

**Bull's Eyes or Lizards, Floor—**  
 W. & J. Tiebout, 118 Chambers St., N. Y.

**Bull Tongues—**  
 Harrow Spring Co., Kalamazoo, Mich.

**Bumpers, Screw—**  
 H. O. Canfield, Bridgeport, Ct.

**Bung Head Bolts—**  
 (See Bolts, Special.)

**Bung Hole Borers—**  
 (See Borers, Bung Hole.)

**Bungs, Oil Can—**  
 Taylor & Boggis Foundry Co., Cleveland, O.

**Bung Starters—**  
 (See Starters, Bung.)

**Burglar Proof Vaults—**  
 (See Vaults, Fire and Burglar Proof.)



Sargent & Co., 151 Leonard St., N. Y.  
 Scovill Mfg. Co., Waterbury, Ct.  
 W. & J. Tiebout, 118 Chambers St., N. Y.

**Butts, Ball Bearing—**  
 Stanley Works, New Britain, Ct.

**Butts, Bronze—**  
 New York Lock Co., Branford, Ct.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.  
 Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Butts, Cast Iron—**  
 New York Lock Co., Branford, Ct.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 Taylor & Boggs Foundry Co., Cleveland, O.

Union Mfg. Co., New Britain, Ct.

**Butts, Spring—**  
 Sargent & Co., 151 Leonard St., N. Y.

**Butts, Wrought Steel—**  
 Griffin Mfg. Co., Erie, Pa.  
 Lawrence Bros., Sterling, Ill.  
 McKinney Mfg. Co., Allegheny, Pa.  
 National Mfg. Co., Sterling, Ill.  
 Reading Hardware Co., Reading, Pa.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stanley Works, New Britain, Ct.

**Buzz Planers—**

(See Planers, Buzz.)

**Cabinet Clamps, &c.—**

(See Clamps, &c.)

**Cabinet Hardware—**

Hardware Supply Co., Grand Rapids, Mich.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Cabinet Hinges—**  
 Reading Hardware Co., Reading, Pa.

Stanley Works, New Britain, Ct.

**Cabinets, Filing and Stationery—**

A. G. Butler, 101 Beekman St., N. Y.  
 J. D. Warren Mfg. Co., Chicago, Ill.

**Cabinets for Bicycle Extras—**

J. D. Warren Mfg. Co., Chicago, Ill.

**Cabinets, Hardware Store—**

W. C. Heller & Co., Montclair, N. J.  
 J. D. Warren Mfg. Co., Chicago, Ill.

**Cabinets, Oil—**

S. F. Bowser & Co., Ft. Wayne, Ind.

**Cabinets, Screw and Bolt—**  
 (See Cases, Screw and Bolt.)

**Cabinets, Self Measuring Oil and Varnish—**

S. F. Bowser & Co., Ft. Wayne, Ind.

**Cabinets, Spice—**

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Cabinets, Tool—**

American Tool Chest Co., 200 W. Houston St., New York.

**Cable Chain—**

(See Chain, Crane Cable, &c.)

**Cable Hoisting—**

A. Leschen & Sons Rope Co., St. Louis, Mo.

**Cable Machinery, Wire—**

Farrel Foundry & Machine Co., Ansonia, Ct.

**Cable Railroads—**

(See Conveying Machinery.)

**Cable Railway Machinery—**

C. O. Bartlett & Snow Co., Cleveland, O.  
 Dodge Mfg. Co., Mishawaka, Ind.

A. Leschen & Sons Rope Co., St. Louis, Mo.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.  
 Poole Engineering & Machine Co., Baltimore, Md.

Tranton Iron Co., Trenton, N. J.  
 Robert Wetherill & Co., Chester, Pa.

**Cables, Concrete Reinforcing—**

International Fence & Fireproofing Co., Columbus, O.

**Cables, Electrical—**

(See Wires, Electrical.)

**Cables, Elevator, Wire—**

Durable Wire Rope Co., Boston, Mass.

**Cableways, Wire—**

(See Tramways, Wire Rope.)

**Cadgers, Miners' Steel—**

Gem Mfg. Co., Pittsburgh, Pa.

**Cages, Bird and Animal—**

Glen Mfg. Co., Ellwood City, Pa.

Andrew B. Hendryx Co., New Haven, Ct.

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Caissons, Steel—**

Wm. B. Pollock Co., Youngstown, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

**Cake Baskets—**

(See Baskets, Silver Plated.)

**Cake Coolers—**

(See Coolers.)

**Cake Pans, Turners, &c.—**

(See Pans, Turners, &c.)

**Calculating Machines—**

Keuffel & Esser Co., 127 Fulton St., New York.

**Calendar Stands—**

(See Stands, Calendar.)

**Calendering Machines, Paper—**

Farrel Foundry & Mach. Co., Ansonia, Ct.

**Calendars, Silver Plated—**

(See Desk Specialties.)

**Caliper and Divider, Combined—**

Iwan Bros., Streator, Ill.

**Calipers—**

Athol Machine Co., Athol, Mass.

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Dame, Stoddard & Co., Boston, Mass.

New England Specialty Co., North Easton, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pratt & Whitney Co., Hartford, Ct.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

Springfield Machine Screw Co., Springfield, Mass.

L. S. Starrett Co., Athol, Mass.

**Calipers, Gear Tooth—**

Brown & Sharpe Mfg. Co., Providence, R. I.



**Calipers, Micrometer—**  
Athol Machine Co., Athol, Mass.  
Brown & Sharpe Mfg. Co., Providence, R. I.

J. T. Slocumb & Co., Providence, R. I.  
L. S. Starrett Co., Athol, Mass.

**Calipers, Vernier—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

**Calking—**  
Estes & Sons, Fall River, Mass.

**Calking Irons, Mallets—**  
(See Irons, Mallets.)

**Calking Tools, Pneumatic Boiler—**

Thos. H. Dallett & Co., York St. and Sedgely Ave., Philadelphia, Pa.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Philadelphia Pneumatic Tool Co., 1039 Ridge Ave., Philadelphia, Pa.  
Stow Flexible Shaft Co., 28th and Callowhill Sts., Philadelphia, Pa.

#### MERCHANTS.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Calks, Boot—**  
Lufkin Rule Co., Saginaw, Mich.  
Louis Sacks Iron Foundry, Newark, N. J.

**Calks, Heel and Toe—**  
P. F. Burke, Boston, Mass.  
Livingston Nail Co., 104 Reade St., N. Y.  
Rhode Island Perkins Horseshoe Co., Providence, R. I.

**Call Bells—**  
(See Bells, Tea and Call.)

**Calls, Dog—**  
Waterbury Brass Co., Waterbury, Ct.

**Calorimeters—**  
Eimer & Amend, 205 Third Ave., N. Y.

**Cam Cutting Attachments—**  
Browne & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

**Cam Cutting Machines—**  
Waterbury Machine Co., Waterbury, Ct.

**Camp Stools—**  
(See Stools, Camp.)

**Candelabra—**  
(See Candlesticks and Candelabra.)

**Candlesticks—**  
New York Stamping Co., Brooklyn, N. Y.  
North Bros. Mfg. Co., Philadelphia, Pa.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sidney Shepard & Co., Buffalo, N. Y.

**Candlesticks and Candelabra—**

Goodwin & Kintz Co., Winsted, Ct.  
Hubley Mfg. Co., Lancaster, Pa.  
International Silver Co., 9-13 Maiden Lane, New York.

**Candlesticks, Miners'—**  
Cleveland Lock Co., Cleveland, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.  
Tower & Lyon Co., 35 Chambers St., New York.

**Candle Wicking—**  
(See Wicks, Candle.)

**Candy Pans, Scales, Scoops—**  
(See Pans, Scales, Scoops.)

**Cane Knives—**  
(See Knives, Cane.)

**Can Faucets, Jackets—**  
(See Faucets, Jackets.)

**Canisters and Caddies, Coffee and Tea—**

New York Stamping Co., Brooklyn, N. Y.

**Can Machinery, Automatic—**  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

**Can Makers' Machinery—**  
Adriance Machine Works, Brooklyn, N. Y.

Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. Leffler & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo, N. Y.

**Cannons, Yacht—**  
R. H. Brown & Co., New Haven, Ct.

Barney & Berry, Springfield, Mass.

R. H. Brown & Co., New Haven, Ct.

**Can Nozzles, Openers, Screws—**  
(See Nozzles, Openers, Screws.)

**Canoes—**  
(See Boats and Canoes.)

**Canopies and Canopy fixtures—**

I. E. Palmer, Middletown, Ct.

**Canopies, Iron—**  
(See Iron Work, Builders.)

**Canopy Nettings—**  
(See Nettings, Canopy.)

**Cans, Ash and Garbage—**  
W. J. Clark Co., Salem, O.

Howard & Morse, 45 Fulton St., N. Y.  
L. O. Koven & Bro., 50 Cliff St., N. Y.

Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Sidney Shepard & Co., Buffalo, N. Y.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

**Cans, Dredge Spice—**  
Sidney Shepard & Co., Buffalo, N. Y.

**Cans, Ice Cream, Packing—**  
Fedders Mfg. Co., Buffalo, N. Y.

**Cans, Ice, Galvanized Iron—**  
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

**Cans, Milk—**  
Charles Millar & Son Co., Utica, N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Cans, Oil—**  
Berger Mfg. Co., Canton, O.

Delphos Can Co., Delphos, O.  
Fedders Mfg. Co., Buffalo, N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

**Cans, Paint and Varnish—**  
American Tube & Stamping Co., Bridgeport, Conn.

**Cans, Sprinkling—**  
Sturges & Burn Mfg. Co., Chicago, Ill.

**Cans, Tin—**  
Sidney Shepard & Co., Buffalo, N. Y.

**Can Stock, Milk—**  
(See Milk Can Stock.)

- Cans, Waste—**  
W. J. Clark Co., Salem, O.  
Howard & Morse, 46 Fulton St., N. Y.  
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
- Cans, Wooden Water—**  
Richmond Cedar Works, Richmond, Va.
- Cant Hooks—**  
(See Hooks, Cant.)
- Canvas, Artists—**  
Devos & Reynolds Co., 176 Randolph St., Chicago, Ill.
- Cape Chisels—**  
(See Chisels, Cape.)
- Caps and Bases, Post—**  
Van Dorn Iron Works Co., Cleveland, O.  
W. J. Clark Co., Salem, O.
- Caps and Ventilators—**  
W. & J. Tiebout, 118 Chambers St., N. Y.
- Caps, Blasting—**  
King Powder Co., Cincinnati, O.
- Cap Screws—**  
(See Screws, Cap and Set.)
- Caps, Door and Window Metal—**  
Berger Mfg. Co., Canton, O.  
Canton Steel & Roofing Co., Canton, O.  
G. Drouve Co., Bridgeport, Ct.
- Caps, Hose—**  
(See Hose Attachments.)
- Caps, Percussion—**  
Union Metallic Cartridge Co., Bridgeport, Ct.  
Waterbury Brass Co., Waterbury, Ct.
- Caps, Post, Fence—**  
Van Dorn Iron Works Co., Cleveland, O.
- Caps, Post, Hitching—**  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.
- Union Mfg. Co., New Britain, Ct.**
- Caps, Storm Sliding Door—**  
Lane Brothers Co., Poughkeepsie, N. Y.
- Capstands—**  
Edson Mfg. Co., Boston, Mass.
- Car Axles, Bearings, &c.—**  
(See Axles, Bearings, &c.)
- Carbide of Silicon—**  
(See Silicon, Carbide of.)
- Carbines—**  
(See Rifles, Carbines, &c.)
- Carbons, Electric Arc Light—**  
Hugo Reisinger, 11 Broadway, New York.
- Carbon Tongs—**  
(See Tongs, Carbon.)
- Carborundum Cloth—**  
Carborundum Co., Niagara Falls, N. Y.
- Carborundum Grains—**  
Carborundum Co., Niagara Falls, N. Y.
- Card Baskets, Cases, Trays, &c.—**  
(See Baskets, Cases, Trays, &c.)
- Car Door Plates—**  
(See Plates, Car Door.)
- Cards, File Cleaning—**  
Nicholson File Co., Providence, R. I.
- Cards, Index—**  
Globe-Wernicke Co., Cincinnati, O.
- Car Frames, Pressed Steel—**  
Avery Stamping Co., Cleveland, O.
- Car Lighting—**  
(See Lighting, Car, Electric, from Axle.)
- Carpenter Shop Machinery—**  
American Machinery Co., Grand Rapids, Mich.
- Fox Machine Co., Grand Rapids, Mich.**
- Carpenters' Clamps, Slicks—**  
(See Clamps, Slicks.)
- Carpet Stretchers—**  
(See Stretchers.)
- Car Pushers—**  
Jos. F. McCoy Co., 157 Chambers St., New York.
- Carriage and Wagon Hardware—**  
Blakeslee Forging Co., Plantville, Ct.  
C. C. Bradley & Son, Inc., Syracuse, N. Y.  
E. D. Clapp Mfg. Co., Auburn, N. Y.  
Covert's Saddlery Works, Farmer, N. Y.  
Richard Eccles Co., Auburn, N. Y.  
Kilbourn & Bishop Co., New Haven, Ct.  
Millersburg Fifth Wheel Co., Millersburg, Pa.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
M. Seward & Son Co., New Haven, Ct.  
Strieby & Foot Co., Newark, N. J.  
Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.
- Carriage Axles, Bolts, &c.—**  
(See Axles, Bolts, &c.)
- Carriage Hubs—**  
(See Hubs, Wire Wheel, Vehicle.)
- Carriages, Gun—**  
Philadelphia Roll & Machine Co., 224 St. & Washington Ave., Philadelphia.
- Carriages, Trolley—**  
Case Mfg. Co., Columbus, O.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Trenton Iron Co., Trenton, N. J.
- Carriers, Barb Wire—**  
Ludlow-Saylor Wire Co., St. Louis, Mo.
- Carriers, Endless Apron—**  
Borden & Selleck Co., 48 Lake St., Chicago, Ill.  
Buhl Malleable Co., Detroit, Mich.  
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Robins Conveying Belt Co., 17-22 Park Row, New York.
- Carriers, Hand Hoist—**  
Case Mfg. Co., Columbus, O.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Ney Mfg. Co., Canton, O.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.
- Carriers, Hay Fork—**  
(See Haying Tools.)
- Carriers, Milk Bottle—**  
Eatey Wire Wks. Co., 59 Fulton St., N. Y.  
Parker Wire Goods Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.
- Carriers, Stove—**  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Carts, Steel, Coal—**  
F. H. Evans, Brooklyn, N. Y.  
**Carvers, Wood, Electric**  
**Spindle—**  
Hardware Supply Co., Grand Rapids, Mich.

**Carving Tools—**  
Charles Buck, Milbury, Mass.  
Buck Bros., Milbury, Mass.  
Millers Falls Co., 28 Warren St., N. Y.

**Car Wheels, Cast—**  
Sheffield Car Co., Three Rivers, Mich.

**Car Wheels, Chilled—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Arthur Koppel, 66-68 Broad St., N. Y.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

**Car Wheels, Wood Center—**  
Sheffield Car Co., Three Rivers, Mich.

**Car Wheels, Wrought Steel—**  
Sheffield Car Co., Three Rivers, Mich.

**Car Works Machinery—**  
American Tool Works Co., Cincinnati, O.  
Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.  
Fox Machine Co., Grand Rapids, Mich.  
Hilles & Jones Co., Wilmington, Del.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

George A. H. & Co., Newark, N. J.  
Pratt & Whitney Co., Hartford, Ct.

**MERCHANTS,**  
Wicks Bros., Saginaw, Mich.

**Car Window Locks—**  
(See Locks, Car Window.)

**Casement Adjusters, Fasteners—**  
(See Adjusters, Fasteners.)

**Cases, Automobile Gear—**  
Federal Mfg. Co., Cleveland, O.

**Cases, Book, Sectional—**  
Globe-Wernicke Co., Cincinnati, O.

**Cases, Card, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Cases, Catalogue—**  
J. D. Warren Mfg. Co., Chicago, Ill.

**Cases, Cigar and Cigarette—**  
Scovill Mfg. Co., Waterbury, Ct.

**Cases, Cullery—**  
J. D. Warren Mfg. Co., Chicago, Ill.

**Cases, Display—**  
J. D. Warren Mfg. Co., Chicago, Ill.  
**Cases, Document and File, Steel—**

Valdorn Iron Works Co., Cleveland, O.

**Cases, Drill—**  
Cleveland Twist Drill Co., Cleveland, O.

**Cases, Filing, Sectional, Document, Letter, &c.—**  
Globe-Wernicke Co., Cincinnati, O.

**Cases, Match—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Cases, Micrometer—**  
Federal Mfg. Co., Cleveland, O.

**Cases, Pigeon Hole—**  
Globe-Wernicke Co., Cincinnati, O.

**Cases, Railroad Ticket—**  
American Railway Supply Co., 24 Park Place, New York.

**Cases, Screw and Bolt—**  
A. H. Green, 22 Park Place, New York.

W. C. Heller & Co., Montclair, N. J.  
J. D. Warren Mfg. Co., Chicago, Ill.

**Cases, Seed—**  
W. C. Heller & Co., Montclair, N. J.

**Cash Recorders, Auto-graphic—**  
(See Recorders, Cash, Autographic.)

**Casing, Oil Well—**  
La Belle Iron Works, Steubenville, O.

**Casings, Steel, Elevator—**  
W. J. Clark Co., Salem, O.

Garry Iron & Steel Co., Cleveland, O.

**Caskets, Jewel, Silver Plated—**  
(See Jewel Caskets, Silver Plated.)

**Casks, Shipping—**  
W. J. Clark Co., Salem, O.

**Casters, Ball and Roller Bearing—**  
M. B. Schenck Co., Meriden, Ct.

Smith & Hemenway Co., 236 Broadway, New York.

Universal Caster & Foundry Co., 316-326 East 23d St., New York.

**Casters, Bed Plate, &c.—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

M. B. Schenck Co., Meriden, Ct.  
Smith & Hemenway Co., 236 Broadway, New York.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

Universal Caster & Foundry Co., 316-326 East 23d St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

**Casters, Dinner, Pickle, Salad, &c., Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Casters, Rubber Wheel—**  
Elastic Tip Co., Boston, Mass.

**Casters, Truck—**  
Adams Co., Dubuque, Ia.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

M. B. Schenck Co., Meriden, Ct.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Casting Machines, Blast Furnace—**  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Castings, Air Furnace—**  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Lehigh Foundry Co., Fullerton, Pa.

**Castings, Aluminum—**  
Bethlehem Steel Co., So. Bethlehem, Pa.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

John W. Clark, Albany, N. Y.

Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

Helwig Mfg. Co., St. Paul, Minn.

Andrew B. Hendryx Co., New Haven, Ct.

Illinois Malleable Iron Co., 39-52 W. Monroe St., Chicago, Ill.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Lunkenheimer Co., Cincinnati, O.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Pittsburgh Reduction Co., Pittsburgh, Pa.

Paul S. Reeves & Son, Philadelphia, Pa.

W. G. Rowell & Co., Bridgeport, Ct.

Stover Mfg. Co., Freeport, Ill.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

E. W. Vanduzen Co., Cincinnati, O.

MERCHANTS.

Homer F. Livermore, Boston, Mass.

J. J. Ryan & Co., 69-74 W. Monroe St., Chicago, Ill.

**Castings, Architectural—**

E. R. Allen Foundry Co., Corning, N. Y.

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.

Harmon-Corger Co., Bloomsburg, Pa.

West Side Foundry Co., Troy, N. Y.

**Castings, Automobile—**

Acme Steel & Malleable Iron Works, Buffalo, N. Y.

**Castings, Bell Metal—**

E. W. Vanduzen Co., Cincinnati, O.

**Castings, Bench Leg—**

E. R. Allen Foundry Co., Corning, N. Y.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Brown & Sharpe Mfg. Co., Providence, R. I.

Case Mfg. Co., Columbus, O.

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.

United States Foundry & Sales Co., So. Norwalk, Ct.

**Castings, Bicycle—**

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Stanley G. Flagg & Co., Philadelphia, Pa.

**Castings, Brass—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

American Tool & Machine Co., Boston, Mass.

American Valve & Metal Co., Cincinnati, O.

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Barry & Zecker, Lancaster, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Chattanooga Car & Foundry Co., Chattanooga, Tenn.

John W. Clark, Albany, N. Y.

Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.

Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.

Curry & Vannan, Danville, Pa.

Julian D'Este Co., Boston, Mass.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Hauck Mfg. Co., Cincinnati, O.

Helwig Mfg. Co., St. Paul, Minn.

Andrew B. Hendryx Co., New Haven, Ct.

Hubley Mfg. Co., Lancaster, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

H. B. Ives Co., New Haven, Ct.

Lunkenheimer Co., Cincinnati, O.

McKenna Bros. Brass Co., Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Nolte Brass Co., Springfield, O.

North Bros. Mfg. Co., Philadelphia, Pa.

North & Judd Mfg. Co., New Britain, Ct.

Henry Perkins Co., Bridgewater, Mass.

Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.

Pleunger & Heuger Mfg. Co., St. Louis, Mo.

Paul S. Reeves & Son, Philadelphia, Pa.

W. G. Rowell & Co., Bridgeport, Ct.

Southern Engine & Boiler Works, Jackson, Tenn.

I. S. Spencer's Sons, Guilford, Ct.

Stover Mfg. Co., Freeport, Ill.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

E. W. Vanduzen Co., Cincinnati, O.

West Side Foundry Co., Troy, N. Y.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Castings, Bronze—**

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Chattanooga Car & Foundry Co., Chattanooga, Tenn.

John W. Clark, Albany, N. Y.

Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.

Julian D'Este Co., Boston, Mass.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Hauck Mfg. Co., Cincinnati, O.

Andrew B. Hendryx Co., New Haven, Ct.

Hubley Mfg. Co., Lancaster, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

H. B. Ives Co., New Haven, Ct.

Lunkenheimer Company, Cincinnati, O.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Murdoch Corporation, Boston, Mass.

New York Lock Co., Branford, Ct.

Nolte Brass Co., Springfield, O.

Phosphor Bronze Smelting Co., 2300 Washington Ave., Philadelphia, Pa.

Pleunger & Heuger Mfg. Co., St. Louis, Mo.

Paul S. Reeves & Son, Philadelphia, Pa.

W. G. Rowell & Co., Bridgeport, Ct.

Southern Engine & Boiler Works, Jackson, Tenn.

I. S. Spencer's Sons, Guilford, Ct.

Stover Mfg. Co., Freeport, Ill.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

E. W. Vanduzen Co., Cincinnati, O.

**Castings, Chair and School Desk—**

E. R. Allen Foundry Co., Corning, N. Y.

**Castings, Chemical Works—**

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Lehigh Foundry Co., Fullerton, Pa.

Lunkenheimer Co., Cincinnati, O.

National Steel Foundry Co., New Haven, Ct.

Philadelphia Roll & Machine Co., 224 St. and Washington Ave., Philadelphia, Pa.

- Carts, Steel, Coal—**  
F. H. Evans, Brooklyn, N. Y.
- Carvers, Wood, Electric Spindle—**  
Hardware Supply Co., Grand Rapids, Mich.
- Carving Tools—**  
Charles Buck, Millbury, Mass.  
Buck Bros., Millbury, Mass.  
Millers Falls Co., 28 Warren St., N. Y.
- Car Wheels, Cast—**  
Sheffield Car Co., Three Rivers, Mich.
- Car Wheels, Chilled—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Arthur Koppel, 66-68 Broad St., N. Y.  
Nazareth Foundry & Machine Co., Nazareth, Pa.
- Car Wheels, Wood Center—**  
Sheffield Car Co., Three Rivers, Mich.
- Car Wheels, Wrought Steel—**  
Sheffield Car Co., Three Rivers, Mich.
- Car Works Machinery—**  
American Tool Works Co., Cincinnati, O.  
Cincinnati Punch & Shear Co., Cincinnati, O.  
Cleveland Punch & Shear Works Co., Cleveland, O.  
Fox Machine Co., Grand Rapids, Mich.  
Hilles & Jones Co., Wilmington, Del.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
George A. Ohi & Co., Newark, N. J.  
Pratt & Whitney Co., Hartford, Ct.
- MERCHANTS.**  
Wickes Bros., Saginaw, Mich.
- Car Window Locks—**  
(See Locks, Car Window.)
- Casement Adjusters, Fasteners—**  
(See Adjusters, Fasteners.)
- Cases, Automobile Gear—**  
Federal Mfg. Co., Cleveland, O.
- Cases, Book, Sectional—**  
Globe-Wernicke Co., Cincinnati, O.
- Cases, Card, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.
- Cases, Catalogue—**  
J. D. Warren Mfg. Co., Chicago, Ill.
- Cases, Cigar and Cigarette—**  
Scovill Mfg. Co., Waterbury, Ct.
- Cases, Cutlery—**  
J. D. Warren Mfg. Co., Chicago, Ill.
- Cases, Display—**  
J. D. Warren Mfg. Co., Chicago, Ill.
- Cases, Document and File, Steel—**  
Van Dorn Iron Works Co., Cleveland, O.
- Cases, Drill—**  
Cleveland Twist Drill Co., Cleveland, O.
- Cases, Filing, Sectional, Document, Letter, &c.—**  
Globe-Wernicke Co., Cincinnati, O.
- Cases, Match—**  
International Silver Co., 9-13 Maiden Lane, New York.
- Cases, Micrometer—**  
Federal Mfg. Co., Cleveland, O.
- Cases, Pigeon Hole—**  
Globe-Wernicke Co., Cincinnati, O.
- Cases, Railroad Ticket—**  
American Railway Supply Co., 24 Park Place, New York.
- Cases, Screw and Bolt—**  
A. H. Green, 22 Park Place, New York.  
W. C. Heller & Co., Montclair, N. J.  
J. D. Warren Mfg. Co., Chicago, Ill.
- Cases, Seed—**  
W. C. Heller & Co., Montclair, N. J.
- Cash Recorders, Auto-graphic—**  
(See Recorders, Cash, Autographic.)
- Casing, Oil Well—**  
La Belle Iron Works, Steubenville, O.
- Casings, Steel, Elevator—**  
W. J. Clark Co., Salem, O.  
Garry Iron & Steel Co., Cleveland, O.
- Caskets, Jewel, Silver Plated—**  
(See Jewel Caskets, Silver Plated.)
- Casks, Shipping—**  
W. J. Clark Co., Salem, O.
- Casters, Ball and Roller Bearing—**  
M. B. Schenck Co., Meriden, Ct.  
Smith & Hemenway Co., 236 Broadway, New York.
- Universal Caster & Foundry Co., 316-326 East 23d St., New York.**
- Casters, Bed Plate, &c.—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
M. B. Schenck Co., Meriden, Ct.  
Smith & Hemenway Co., 236 Broadway, New York.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.
- Universal Caster & Foundry Co., 316-326 East 23d St., New York.**
- Wrightsville Hardware Co., Wrightsville, Pa.**
- Casters, Dinner, Pickle, Salad, &c., Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.
- Casters, Rubber Wheel—**  
Elastic Tty Co., Boston, Mass.
- Casters, Truck—**  
Adams Co., Dubuque, Ia.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Plunger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
M. B. Schenck Co., Meriden, Ct.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.
- Casting Machines, Blast Furnace—**  
Wellman-Seaver-Morgan Co., Cleveland, O.
- Castings, Air Furnace—**  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.
- Lehigh Foundry Co., Fullerton, Pa.**
- Castings, Aluminum—**  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Bridgeport, Deoxidized Bronze & Metal Co., Bridgeport, Ct.  
John W. Clark, Albany, N. Y.  
Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.  
Helwig Mfg. Co., St. Paul, Minn.  
Andrew B. Hendrix Co., New Haven, Ct.  
Illinois Malleable Iron Co., 33-32 W. Monroe St., Chicago, Ill.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
Lunkenheimer Co., Cincinnati, O.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
Pittsburgh Reduction Co., Pittsburgh, Pa.  
Paul S. Reeves & Son, Philadelphia, Pa.  
W. G. Rowell & Co., Bridgeport, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Turner Brass Works, 44 No. Franklin St., Chicago, Ill.  
E. W. Vanduzen Co., Cincinnati, O.

**MERCHANTS.**

Homer F. Livermore, Boston, Mass.  
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

**Castings, Architectural—**  
E. R. Allen Foundry Co., Corning, N. Y.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
J. B. & J. M. Cornell, 26th St. and 11th Ave., New York.  
Harmon-Cogger Co., Bloomsburg, Pa.  
West Side Foundry Co., Troy, N. Y.

**Castings, Automobile—**  
Acme Steel & Malleable Iron Works, Buffalo, N. Y.

**Castings, Bell Metal—**  
E. W. Vanduzen Co., Cincinnati, O.

**Castings, Bench Leg—**  
E. R. Allen Foundry Co., Corning, N. Y.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Case Mfg. Co., Columbus, O.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
B. F. Sturtevant Co., Boston, Mass.  
United States Foundry & Sales Co., So. Norwalk, Ct.

**Castings, Bicycle—**  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
Stanley G. Flagg & Co., Philadelphia, Pa.

**Castings, Brass—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
American Tool & Machine Co., Boston, Mass.  
American Valve & Metal Co., Cincinnati, O.  
Bancroft & Co., Drexel Bldg., Philadelphia, Pa.  
Barry & Zecker, Lancaster, Pa.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.  
Chattanooga Car & Foundry Co., Chattanooga, Tenn.  
John W. Clark, Albany, N. Y.  
Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.  
Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.  
Curry & Vannan, Danville, Pa.  
Julian D'Este Co., Boston, Mass.  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
Hauck Mfg. Co., Cincinnati, O.  
Helwig Mfg. Co., St. Paul, Minn.  
Andrew B. Hendryx Co., New Haven, Ct.  
Hubley Mfg. Co., Lancaster, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
H. B. Ives Co., New Haven, Ct.  
Lunkenheimer Co., Cincinnati, O.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-13 Murray St., New York.  
Nolte Brass Co., Springfield, O.  
North Bros. Mfg. Co., Philadelphia, Pa.  
North & Judd Mfg. Co., New Britain, Ct.  
Henry Perkins Co., Bridgewater, Mass.  
Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.  
Plunger & Henger Mfg. Co., St. Louis, Mo.  
Paul S. Reeves & Son, Philadelphia, Pa.  
W. G. Rowell & Co., Bridgeport, Ct.  
Southern Engine & Boiler Works, Jackson, Tenn.  
I. S. Spencer's Sons, Guilford, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Turner Brass Works, 44 No. Franklin St., Chicago, Ill.  
E. W. Vanduzen Co., Cincinnati, O.  
West Side Foundry Co., Troy, N. Y.  
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Castings, Bronze—**  
Bancroft & Co., Drexel Bldg., Philadelphia, Pa.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.  
Chattanooga Car & Foundry Co., Chattanooga, Tenn.  
John W. Clark, Albany, N. Y.  
Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.  
Julian D'Este Co., Boston, Mass.  
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
Hauck Mfg. Co., Cincinnati, O.  
Andrew B. Hendryx Co., New Haven, Ct.  
Hubley Mfg. Co., Lancaster, Pa.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
H. B. Ives Co., New Haven, Ct.  
Lunkenheimer Company, Cincinnati, O.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
Murdock Corporation, Boston, Mass.  
New York Lock Co., Branford, Ct.  
Nolte Brass Co., Springfield, O.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Plunger & Henger Mfg. Co., St. Louis, Mo.  
Paul S. Reeves & Son, Philadelphia, Pa.  
W. G. Rowell & Co., Bridgeport, Ct.  
Southern Engine & Boiler Works, Jackson, Tenn.  
I. S. Spencer's Sons, Guilford, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Turner Brass Works, 44 No. Franklin St., Chicago, Ill.  
E. W. Vanduzen Co., Cincinnati, O.  
**Castings, Chair and School Desk—**  
E. R. Allen Foundry Co., Corning, N. Y.  
**Castings, Chemical Works—**  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
Lehigh Foundry Co., Fullerton, Pa.  
Lunkenheimer Co., Cincinnati, O.  
National Steel Foundry Co., New Haven, Ct.  
Philadelphia Roll & Machine Co., 72d St. and Washington Ave., Philadelphia, Pa.

**Castings, Chrome Steel—**

Chrome Steel Works, Brooklyn, N. Y.

**Castings, Composition—**

Julian D'Este Co., Boston, Mass.

Illinois Malleable Iron Co., 30-32 W. Mon-

roe St., Chicago, Ill.

H. B. Ives Co., New Haven, Ct.

Henry Perkins Co., Bridgewater, Mass.

Paul S. Reeves &amp; Son, Philadelphia, Pa.

I. S. Spencer's Sons, Guilford, Ct.

E. W. Vanduzen Co., Cincinnati, O.

Walter W. Woodruff &amp; Sons Co., Mount

Carmel, Ct.

**Castings, Copper—**

Bancroft &amp; Co., Drexel Bldg., Phila-

delphia, Pa.

Bridgeport Deoxidized Bronze &amp; Metal

Co., Bridgeport, Ct.

Wm. Cramp &amp; Sons Ship &amp; Engine Build-

ing Co., Philadelphia, Pa.

Eynon-Evans Mfg. Co., 1507 Clearfield St.,

Philadelphia, Pa.

Illinois Malleable Iron Co., 30-32 W. Mon-

roe St., Chicago, Ill.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Nolte Brass Co., Springfield, O.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Paul S. Reeves &amp; Son, Philadelphia, Pa.

Southern Engine &amp; Boiler Works, Jack-

son, Tenn.

Turner Brass Works, 44 No. Franklin St.,

Chicago, Ill.

E. W. Vanduzen Co., Cincinnati, O.

**Castings, Dynamo and****Motor—**

E. R. Allen Foundry Co., Corning, N. Y.

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

Logan Mfg. Co., Phoenixville, Pa.

United States Foundry &amp; Sales Co., So.

Norwalk, Ct.

Westinghouse Electric &amp; Mfg. Co., Pitts-

burgh, Pa.

**Castings, Engine Model—**

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

**Castings, Finished—**

Allen Rolling Mills, Allentown, Pa.

Bethlehem Foundry &amp; Machine Co.,

South Bethlehem, Pa.

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

Julian D'Este Co., Boston, Mass.

H. H. Franklin Mfg. Co., Syracuse, N. Y.

Hubley Mfg. Co., Lancaster, Pa.

Lehigh Foundry Co., Fullerton, Pa.

Nazareth Foundry &amp; Machine Co., Naza-

reth, Pa.

Philadelphia Roll &amp; Machine Co., 23d St.

and Washington Ave., Philadelphia, Pa.

**Castings for Sugar Work—**

Bethlehem Foundry &amp; Machine Co., S.

Bethlehem, Pa.

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

**Castings, Furnace—**

E. R. Allen Foundry Co., Corning, N. Y.

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

Logan Mfg. Co., Phoenixville, Pa.

Philadelphia Roll &amp; Machine Co., 23d St.

and Washington Ave., Philadelphia, Pa.

**Castings, Governor—**

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

**Castings, Gray Iron—**

Acme Foundry Co., Cleveland, O.

Adams Co., Dubuque, Ia.

E. R. Allen Foundry Co., Corning, N. Y.

Allentown Rolling Mills, Allentown, Pa.

American Brake Shoe &amp; Foundry Co.,

Mahwah, N. J.

Baker Bros., Toledo, O.

Bancroft &amp; Co., Drexel Bldg., Phila-

delphia, Pa.

Barnes Mfg. Co., Mansfield, Ohio.

Barry &amp; Zecher, Lancaster, Pa.

Bethlehem Foundry &amp; Machine Co.,

South Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Buffalo Foundry Co., Buffalo, N. Y.

Buhl Malleable Co., Detroit, Mich.

Canton Foundry &amp; Machine Co., Can-

ton, O.

Chattanooga Roofing &amp; Foundry Co.,

Chattanooga, Tenn.

S. Cheney &amp; Son, Manlius, N. Y.

Cleveland Galvanizing Works, Cleveland.

Columbia Grey Iron Casting Co., Colum-

bia, Pa.

Crane Co., Chicago, Ill.

W. M. Crane Co., 1131 Broadway, N. Y.

Diamond Drill &amp; Machine Co., Birds-

boro, Pa.

Donovan Wire &amp; Iron Co., Toledo, O.

Empire Foundry Co., New Brunswick,

N. J.

Stanley G. Flag &amp; Co., Philadelphia, Pa.

Forest City Foundry &amp; Mfg. Co., Clevel-

and, O.

Harman-Cogger Co., Bloomsburg, Pa.

Howard Iron Works, Buffalo, N. Y.

Hubley Mfg. Co., Lancaster, Pa.

Illinois Malleable Iron Co., Chicago, Ill.

Interstate Foundry Co., Cleveland, O.

Janney Steinmetz &amp; Co., Drexel Bldg.,

Philadelphia, Pa.

Jarecki Mfg. Co., Erie, Pa.

Lehigh Foundry Co., Fullerton, Pa.

J. H. Lingle, Bellefonte, Pa.

Logan Mfg. Co., Phoenixville, Pa.

Mahoning Foundry &amp; Machine Co.,

Youngstown, O.

Charles Millar &amp; Son Co., Utica, N. Y.

Minneapolis Steel &amp; Machinery Co., Min-

neapolis, Minn.

Nazareth Foundry &amp; Machine Co., Naza-

reth, Pa.

New Jersey Foundry &amp; Machine Co., 9-15

Murray St., New York.

New York Lock Co., Branford, Ct.

North Bros. Mfg. Co., Lehigh Ave. &amp;

American St., Philadelphia, Pa.

Palmer &amp; De Mooy Foundry Co., Clevel-

and, O.

Payne Co., Elmira, N. Y.

Philadelphia Foundry &amp; Machine Co.,

Gray's Ferry Rd., Philadelphia, Pa.

Philadelphia Roll &amp; Machine Co., 23d

St. &amp; Washington Ave., Philadelphia.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Poole Engineering &amp; Machine Co., Balti-

more, Md.

Robbins &amp; Myers Co., Springfield, O.

Louis Sacks Iron Foundry, Newark, N. J.

George B. Sennett Co., Youngstown, O.

Sessions Foundry Co., Bristol, Ct.

Smith &amp; Caffrey, Syracuse, N. Y.

South Pittsburgh Iron Works, Clays-

ville, Pa.

I. S. Spencer's Sons, Guilford, Ct.

Stover Mfg. Co., Freeport, Ill.  
Stowell Mfg. & Foundry Co., So. Milwaukee, Wis.  
Susquehanna Casting Co., Wrightsville, Pa.

Taylor & Boggis Foundry Co., Cleveland, United States Foundry & Sales Co., So. Norwalk, Ct.  
Vilter Mfg. Co., Milwaukee, Wis.  
Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
West Side Foundry Co., Troy, N. Y.  
Wilks Foundry Co., Toledo, O.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Castings, Gun Iron—**  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Buffalo Foundry Co., Buffalo, N. Y.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
Poole Engineering & Machine Co., Baltimore, Md.  
E. W. Vandusen Co., Cincinnati, O.

**Castings, Iron—**  
Acme Foundry Co., Cleveland, O.  
E. R. Allen Foundry Co., Corning, N. Y.  
Allentown Rolling Mills, Allentown, Pa.  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
American Tool & Machine Co., Boston, Mass.

Baker Bros., Toledo, O.  
Bancroft & Co., Drexel Bldg., Philadelphia, Pa.  
Barbour-Stockwell Co., Cambridgeport, Mass.

Barry & Zecher, Lancaster, Pa.  
Bausch Machine Tool Co., Springfield, Mass.  
Wm. Bayley & Sons Co., Milwaukee, Wis.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.  
Birmingham Iron Foundry, Derby, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Bromell, Schmidt & Stacey Co., York, Pa.

Brown & Sharpe Mfg. Co., Providence, R. I.

A. Buch's Sons Co., Elizabethtown, Pa.  
Buffalo Foundry Co., Buffalo, N. Y.  
Builders' Iron Foundry, Providence, R. I.  
Thos. Carlin's Sons, Allegheny, Pa.  
Chattanooga Car & Foundry Co., Chattanooga, Tenn.

John W. Clark, Albany, N. Y.  
Colonial Foundry & Machine Co., So. Norwalk, Ct.

Columbia Grey Iron Casting Co., Columbia, Pa.  
Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.

J. B. & J. M. Cornell, 239 11th Ave., New York.

W. M. Crane Co., 1131 Broadway, N. Y.  
Curry & Vannan, Danville, Pa.  
Diamond Drill & Machine Co., Birdsboro, Pa.

Dimmick Pipe Co., Birmingham, Ala.  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Donovan Wire & Iron Co., Toledo, O.  
Dubuque Machine Concern, Dubuque, Ia.  
Farrel Foundry & Mach. Co., Ansonia, Ct.  
Stanley G. Flagg & Co., Philadelphia, Pa.

Forest City Foundry & Mfg. Co., Cleveland, O.

A. Garrison Foundry Co., Pittsburgh, Pa.  
L. H. Goodnow Foundry Co., Fitchburg, Mass.

I. & E. Greenwald Co., Cincinnati, O.  
Harron-Cogger Co., Bloomsburg, Pa.  
George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Hubley Mfg. Co., Lancaster, Pa.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Interstate Foundry Co., Cleveland, O.  
Jannoy Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Lane & Bodley Co., Cincinnati, O.  
Lehigh Foundry Co., Fullerton, Pa.  
Logan Mfg. Co., Phoenixville, Pa.  
Mahoning Foundry & Machine Co., Youngstown, O.

Mesta Machine Co., Pittsburgh, Pa.  
Chas. Millar & Son Co., Utica, N. Y.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Nazareth Foundry & Machine Co., Nazareth, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Foundry & Machine Co., Gray's Ferry Rd., Philadelphia, Pa.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

W. A. Ross & Bro., 11 So. William St., New York.

Royersford Foundry & Machine Co., Royersford, Pa.

Sessions Foundry Co., Bristol, Ct.  
Smith & Caffrey, Syracuse, N. Y.  
Soutle Steam Feed Works, Meridian, Miss.

Southern Engine & Boiler Works, Jackson, Tenn.

I. S. Spencer's Sons, Guilford, Ct.

Stover Mfg. Co., Freeport, Ill.

Susquehanna Castings Co., Wrightsville, Pa.

Taunton Locomotive Mfg. Co., Taunton, Mass.

Taylor & Boggis Foundry Co., Cleveland, Wm. Tod Co., Youngstown, O.

Tyrone Foundry & Machine Co., Tyrone, Pa.

United States Foundry & Sales Co., So. Norwalk, Ct.

Velte Foundry & Machine Co., Pittsburgh, Pa.

Vilter Mfg. Co., Milwaukee, Wis.  
Samuel Wallace, White Haven, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.  
West Side Foundry Co., Troy, N. Y.

Robert Wetherill & Co., Chester, Pa.  
Wheeling Mold & Foundry Co., Wheeling, W. Va.

R. W. Whitehurst Co., Norfolk, Va.  
Wilks Foundry Co., Toledo, O.

R. D. Wood & Co., 490 Chestnut St., Philadelphia, Pa.

Wrightsville Hardware Co., Wrightsville, Pa.



**MERCHANTS.**

Reed F. Blair & Co., Pittsburgh, Pa.  
 O. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
 Homer F. Livermore, Boston, Mass.  
 F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
 Charles G. Shepard, Buffalo, N. Y.  
 Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Castings, Iron, Special—**

Barry & Zecher, Lancaster, Pa.  
 Buffalo Foundry Co., Buffalo, N. Y.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 Lehigh Foundry Co., Fullerton, Pa.  
 Mahoning Foundry & Machine Co., Youngstown, O.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Philadelphia Roll & Machine Co., 23d St., and Washington Ave., Philadelphia, Pa.  
 Taunton Locomotive Mfg. Co., Taunton, Mass.  
 United States Foundry & Sales Co., So. Norwalk, Ct.  
 Wilks Foundry Co., Toledo, O.

**Castings, Iron, Thermit****Process—**

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

**Castings, Lathe—**

Buffalo Foundry Co., Buffalo, N. Y.  
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
 Logan Mfg. Co., Phoenixville, Pa.  
 Philadelphia Roll & Machine Co., 23d St., and Washington Ave., Philadelphia, Pa.

**Castings, Lead—**

American Tool & Machine Co., Boston, Mass.

**Castings, Locomotive and****Car—**

Baker Bros., Toledo, O.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Buffalo Foundry Co., Buffalo, N. Y.  
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
 Logan Mfg. Co., Phoenixville, Pa.  
 National Steel Foundry Co., New Haven, Ct.  
 Philadelphia Foundry & Machine Co., Gray's Ferry Rd., Philadelphia, Pa.  
 Tyrone Foundry & Machine Co., Tyrone, Pa.

**Castings, Malleable Iron—**

Acme Steel & Malleable Iron Works, Buffalo, N. Y.  
 Arcade Malleable Iron Co., Worcester, Mass.  
 Bancroft & Co., Drexel Bldg., Philadelphia, Pa.  
 Buhl Malleable Co., Detroit, Mich.  
 Chisholm & Moore Mfg. Co., Cleveland, O.  
 Cleveland Galvanizing Works, Cleveland, O.  
 Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.  
 Crane Co., Chicago, Ill.  
 Stanley G. Plagg & Co., Philadelphia, Pa.  
 Hammer & Co., Branford, Ct.

Haven Malleable Castings Co., Cincinnati, O.

Helwig Mfg. Co., St. Paul, Minn.  
 Janney Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
 Jarecki Mfg. Co., Erie, Pa.  
 Norway Iron & Steel Co., York, Pa.  
 North & Judd Mfg. Co., New Britain, Ct.  
 Louis Sacks Iron Foundry, Newark, N. J.  
 St. Louis Malleable Castings Co., St. Louis, Mo.  
 Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

**Castings, Manganese****Bronze—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
 W. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.  
 Paul S. Reeves & Son, Philadelphia, Pa.  
 E. W. Vanduzen Co., Cincinnati, O.

**Castings, Man Hole, Cistern,****Cover, Sewer,****Gutter,****Crossing, &c.—**

E. R. Allen Foundry Co., Corning, N. Y.  
 Allentown Rolling Mills, Allentown, Pa.  
 Baker Bros., Toledo, O.  
 Barbour-Stockwell Co., Cambridgeport, Mass.

Barnes Mfg. Co., Mansfield, Ohio.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Buffalo Foundry Co., Buffalo, N. Y.  
 Thomas Carlin's Sons, Allegheny, Pa.  
 Chattanooga Car & Foundry Co., Chattanooga, Tenn.

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
 Dimmick Pipe Co., Birmingham, Ala.  
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Hess, Snyder & Co., Massillon, O.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Logan Mfg. Co., Phoenixville, Pa.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Stover Mfg. Co., Freeport, Ill.  
 B. F. Sturtevant Co., Boston, Mass.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

**Castings, Marine, Machine,****&c.—**

E. R. Allen Foundry Co., Corning, N. Y.  
 Barry & Zecher, Lancaster, Pa.  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Buffalo Foundry Co., Buffalo, N. Y.  
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

L. H. Goodnow Foundry Co., Fitchburg, Mass.  
 Lehigh Foundry Co., Fullerton, Pa.

Logan Mfg. Co., Phoenixville, Pa.  
 Mahoning Foundry & Machine Co., Youngstown, O.

Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Henry Perkins Co., Bridgewater, Mass.  
 Smith & Caffrey, Syracuse, N. Y.

Tyrone Foundry & Machine Co., Tyrone, Pa.

United States Foundry & Sales Co., So. Norwalk, Ct.

Wilks Foundry Co., Toledo, O.  
**Castings, Nickel Steel—**  
Philadelphia Steel & Iron Co., Frankford, Philadelphia, Pa.

**Castings, Phosphor Bronze—**  
American Valve & Meter Co., Cincinnati, O.

Bethlehem Steel Co., So. Bethlehem, Pa.  
Nolte Brass Co., Springfield, O.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Paul S. Reeves & Son, Philadelphia, Pa.  
E. W. Vanduzen Co., Cincinnati, O.

**Castings, Plow—**  
S. Cheney & Son, Manlius, N. Y.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
R. W. Whitehurst Co., Norfolk, Va.

**Castings, Pulley—**  
Case Mfg. Co., Columbus, O.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.  
Poole Engineering & Machine Co., Baltimore, Md.

United States Foundry & Sales Co., So. Norwalk, Ct.

**Castings, Rolling Mill—**  
E. R. Allen Foundry Co., Corning, N. Y.  
Barry & Zeech, Lancaster, Pa.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Buffalo Foundry Co., Buffalo, N. Y.  
Thos. Carlin's Sons, Allegheny, Pa.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Curry & Vannan, Danville, Pa.  
Diamond Drill & Machine Co., Birdsboro, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.  
George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Lehigh Foundry Co., Fullerton, Pa.  
Logan Mfg. Co., Phoenixville, Pa.  
National Steel Foundry Co., New Haven, Ct.

Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
Poole Engineering & Machine Co., Baltimore, Md.

Seaboard Steel Casting Co., Chester, Pa.  
Wm. Tod Co., Youngstown, O.  
Tyrone Foundry & Machine Co., Tyrone, Pa.

Velte Foundry & Machine Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.  
Wheeling Mold & Foundry Co., Wheeling, W. Va.

Wilks Foundry Co., Toledo, O.

**Castings, Semi-Steel—**  
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

**Castings, Special—**  
E. R. Allen Foundry Co., Corning, N. Y.

**Castings, Stamp Mill—**  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Buffalo Foundry Co., Buffalo, N. Y.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Chrome Steel Works, Brooklyn, N. Y.  
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Seaboard Steel Casting Co., Chester, Pa.

**Castings, Steel—**  
Acme Steel & Malleable Iron Works, Buffalo, N. Y.

American Brake Shoe & Foundry Co., Mahwah, N. J.  
Arcade Malleable Iron Co., Worcester, Mass.

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.  
Birmingham Iron Foundry, Derby, Ct.  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Chrome Steel Works, Brooklyn, N. Y.  
Cooper-Wigand-Cooke Co., 152-154 W. 34th St., New York.

Diamond Drill & Machine Co., Birdsboro, Pa.

Stanley G. Flagg & Co., Philadelphia, Pa.  
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Mesta Machine Co., Pittsburgh, Pa.  
National Steel Foundry Co., New Haven, Ct.

Norway Iron & Steel Co., York, Pa.  
Otis Steel Co., Ltd., Cleveland, O.

Philadelphia Steel & Iron Co., Frankford, Philadelphia, Pa.

Pope-Robinson Co., Hyde Park, Mass.  
Providence Steel Casting Co., Providence, R. I.

Seaboard Steel Casting Co., Chester, Pa.  
Geo. H. Smith Steel Casting Co., Milwaukee, Wis.

Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**  
Denman & Davis, 88-87 John St., N. Y.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Homer F. Livermore, Boston, Mass.

Nazareth Foundry & Machine Co., Nazareth, Pa.

John B. Newkirk & Co., 15th & Market Sts., Philadelphia, Pa.

F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Wm. H. Wallace & Co., 66 Broadway, New York.

Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Castings, Steel Elevator—**  
Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

**Castings, Steel, Thermit Process—**  
Goldschmidt Thermit Co., 43 Exchange Pl., New York.

**Castings, Store Front—**  
United States Foundry & Sales Co., So. Norwalk, Ct.

**Castings, Stove—**  
S. Cheney & Son, Manlius, N. Y.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Stover Mfg. Co., Freeport, Ill.

**Castings, Tinned—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Castings, Tunnel—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Fleuger & Henger Mfg. Co., St. Louis, Mo.

**Castings, Water Works—**

Buffalo Foundry Co., Buffalo, N. Y.  
 Builders' Iron Foundry, Providence, R. I.  
 Charles Millar & Son Co., Utica, N. Y.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Poole Engineering & Machine Co., Baltimore, Md.

Wilks Foundry Co., Toledo, O.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Castings, White Metal—**

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

H. H. Franklin Mfg. Co., Syracuse, N. Y.

Andrew B. Hendryx Co., New Haven, Ct.

Fleuger & Henger Mfg. Co., St. Louis, Mo.

North & Judd Mfg. Co., New Britain, Ct.

Paul S. Reeves & Son, Philadelphia, Pa.

E. W. Vanduzen Co., Cincinnati, O.

Veeder Mfg. Co., Hartford, Ct.

**Castings, Wrought Iron—**

National Tube Co., Pittsburgh, Pa.

**Castings, Zinc—**

E. W. Vanduzen Co., Cincinnati, O.

**Cast Iron Enamels—**

(See Enamels, Acid Proof and Cast Iron.)

**Cast Washers—**

(See Washers, Cast.)

**Catalogue Cases, Cabinets—**

(See Cases, Cabinets, Catalogue.)

**Catalogues and Circulars—**

Francis I. Maule, 402 Sansom St., Philadelphia, Pa.

**Catch Basin Covers—**

(See Covers, Catch Basin.)

**Catchers, Grass—**

Enterprise Mfg. Co., Philadelphia, Pa.

Ney Mfg. Co., Canton, O.

Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.

Supplee Hardware Co., Philadelphia, Pa.

Whitman & Barnes Mfg. Co., Akron, O.

**Catchers, Mail—**

Taylor & Boggis Foundry Co., Cleveland.

**Catchers and Fasteners, Refrigerator—**

Arcade Mfg. Co., Freeport, Ill.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Catchers, Barn Door—**

S. Cheney & Son, Manlius, N. Y.

**Catchers, Cupboard—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Taylor & Boggis Foundry Co., Cleveland.

W. & J. Tiebout, 118 Chambers St., N. Y.

Universal Fastener Co., Cleveland, O.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Catchers, Door—**

Hardware Supply Co., Grand Rapids, Mich.

Ney Mfg. Co., Canton, O.

Universal Fastener Co., Cleveland, O.

**Catches, Elbow—**

Ney Mfg. Co., Canton, O.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Catches, Screen Door—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Catches, Showcase—**

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Catches, Transom—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Catches, Trunk—**

J. H. Sessions & Son, Bristol, Ct.

**Catches, Window—**

Caldwell Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

Universal Fastener Co., Cleveland, O.

**Cattle Leaders, Prods. &c.—**  
 (See Leaders, Prods. &c.)

**Ceiling and Siding, Iron and Steel—**

American Steel & Tin Plate Co., Pittsburgh, Pa.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Garry Iron & Steel Co., Cleveland, O.

Gott, Horner & Co., Ltd., Pittsburgh, Pa.

McCullough Iron Co., Wilmington, Del.

Moseley Iron Bridge & Roof Co., 39 Cortland St., New York.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngtown Iron Sheet & Tube Co., Youngstown, O.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

Merchant & Co., Inc., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Ceiling Hooks—**  
 (See Hooks, Chandelier or Lamp.)

**Ceiling Plates—**  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Ceiling Pulleys—**  
 (See Pulleys, Ceiling.)

**Ceilings, Metal—**

Rerger Mfg. Co., Canton, O.  
Canton Steel Roofing Co., Canton, O.  
Wm. B. Seafie & Sons, Pittsburgh, Pa.

**Cement—**

Edison Portland Cement Co., New Village, N. J.  
Lawrence Cement Co., 1 Broadway, N. Y.

**MERCHANTS,**

Reed F. Blair & Co., Pittsburgh, Pa.

**Cement, Asbestos, Furnace—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.

**Cement, Belting—**

Alexander Bros., 410-412 N. 3d St., Philadelphia, Pa.

Case Mfg. Co., Columbus, O.  
Shultz Belting Co., St. Louis, Mo.

**Cement Drills—**

(See Drills, Brick and Cement.)

**Cement, Fire—**

Presbrey Fire Brick Works, Taunton, Mass.

**Cement for Iron and Steel Castings—**

Clark Cast Steel Cement Co., Shelton, Ct.  
Clark Cast Steel Cement Co., Shelton, Ct.

**Cement, Iron—**

S. Obermayer Co., Cincinnati, O.  
Smooth-On Mfg. Co., Jersey City, N. J.

**Cement Machinery—**

Allis-Chalmers Co., Home Insurance Building, Chicago, Ill.

O. O. Bartlett & Snow Co., Cleveland, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Fairbanks Co., 416 Broome St., New York.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Wellman-Seaver-Morgan Co., Cleveland, O.  
Wickes Bros., Saginaw, Mich.

**MERCHANTS,**

Contactors' Equipment Co., Betz Bldg., Philadelphia, Pa.

McGeorge & Sons, Cleveland, O.

**Cement, Roofing—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.  
Garry Iron & Steel Co., Cleveland, O.

United States Gutta Percha Paint Co., Providence, R. I.

**Cement, Stove—**

Jos. Dixon Crucible Co., Jersey City, N. J.

**Center Drills, Gauges, Indicators, Testers—**

(See Drills, Gauges, Indicators, Testers.)

**Center Grinders, Lathe—**

(See Grinders, Lathe Center.)

**Centering Chucks—**

(See Chucks, Centering.)

**Centering Machines—**

Espen-Lucas Machine Works, Broad and J. Noble Sts., Philadelphia, Pa.

Fawcuss Machine Co., Pittsburgh, Pa.  
Kempemith Mfg. Co., Milwaukee, Wis.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

T. Slocum & Co., Providence, R. I.  
D. E. Whiton Machine Co., New London, Ct.

**MERCHANTS,**

Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

J. B. Vandyck Co., 3 Dey St., New York.

**Centers, Indexing—**

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.  
Cincinnati Milling Machine Co., Cincinnati, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Gould & Eberhardt Co., Newark, N. J.  
Pratt & Whitney Co., Hartford, Ct.

**Centers, Neck Yoke—**

Covert's Saddlery Works, Farmer, N. Y.

**Centers, Planer—**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
F. E. Reed & Co., Worcester, Mass.

**Centers, Sash and Transom—**

Hoerle Mfg. Co., Pittsburgh, Pa.  
John C. Kupferle, St. Louis, Mo.

New York Lock Co., Branford, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plueger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Wrightsville Hdw. Co., Wrightsville, Pa.

Xale & Towne Mfg. Co., 9-15 Murray St., New York.

**Centers, Shaper—**

Hendey Machine Co., Torrington, Ct.

**Cesspools—**

Goulds Mfg. Co., Seneca Falls, N. Y.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

John C. Kupferle, St. Louis, Mo.  
Plueger & Henger Mfg. Co., St. Louis, Mo.

**Chafing Dishes—**

(See Dishes, Chafing.)

**Chain, Aluminum—**

Bridgeport Chain Co., Bridgeport, Ct.

**Chain, Automobile—**

Federal Mfg. Co., Cleveland, O.

**Chain Bars, Bicycle—**

(See Bicycle Chain Bars.)

**Chain Belting, Hoists, &c.—**

(See Belting, Hoists, &c.)

**Chain, Bicycle—**

Boston Gear Works, Boston, Mass.  
Federal Mfg. Co., Cleveland, O.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Reading Screw Co., Norristown, Pa.

**MERCHANTS,**

Brown-Wales Co., Boston, Mass.

**Chain, Brake—**

Jas. McKay & Co., Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

**Chain, Brake, Railroad—**

Jas. McKay & Co., Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

**Chain, Bronse, Brass, Iron and Steel—**

Bridgeport Chain Co., Bridgeport, Ct.  
Andrew B. Hendryx Co., New Haven, Ct.

**Chain, Coil—**

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.  
Bridgeport Chain Co., Bridgeport, Ct.  
A. Leschen & Sons Rope Co., St. Louis, Mo.

Jas. McKay & Co., Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Oneida Community, Ltd., Kenwood, N. Y.  
Standard Chain Co., Pittsburgh, Pa.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Hermann Boker & Co., 101-103 Duane St., New York.

**Chain, Conveyor—**

James McKay & Co., Pittsburgh, Pa.  
Standard Chain Co., Pittsburgh, Pa.

**Chain, Crane, Cable, &c.—**

C. O. Bartlett & Snow Co., Cleveland, O.  
Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.  
Filer & Stowell Co., Milwaukee, Wis.  
C. W. Hunt Co., West New Brighton, N. Y.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis, Mo.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Jas. McKay & Co., Pittsburgh, Pa.  
New Castle Forge & Bolt Co., New Castle, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

**MERCHANTS.**

Brown-Wales Co., Boston, Mass.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Wickes Bros., Saginaw, Mich.

**Chain, Driving—**

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

**Chain, Galvanized—**

Standard Chain Co., Pittsburgh, Pa.

**Chain, Jack, Safety, &c.—**

Ames Sword Co., Chicopee, Mass.

Bridgeport Brass Co., Bridgeport, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

A. B. Hendryx & Co., New Haven, Ct.

McNab & Harlin Mfg. Co., 56 John St., New York.

Oneida Community, Ltd., Kenwood, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Scovill Mfg. Co., Waterbury, Ct.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Chain Links and Chain—**

C. O. Bartlett & Snow Co., Cleveland, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Bridgeport Chain Co., Bridgeport, Ct.

Buhl Malleable Co., Detroit, Mich.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Bolt & Nut Co., Providence, R. I.

Filer & Stowell Co., Milwaukee, Wis.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Jeffrey Mfg. Co., Columbus, O.

Keystone Drop Forge Works, Chester, Pa.

Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Rhode Island Tool Co., Providence, R. I.

Standard Chain Co., Pittsburgh, Pa.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

Wilson & Smith, Worcester, Mass.

Wire Goods Co., Worcester, Mass.

**Chain Links, Cutters for****Sawing Bicycle—**

(See Bicycle Chain Links, Cutters for Sawing.)

**Chain, Lumber Boom—**

Standard Chain Co., Pittsburgh, Pa.

**Chain Machinery—**

Bridgeport Chain Co., Bridgeport, Ct.

Federal Mfg. Co., Cleveland, O.

Standard Chain Co., Pittsburgh, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Chain Machinery, Bicycle—**

E. W. Bliss Co., Brooklyn, N. Y.

Garyn Machine Co., Spring & Varick Sta., New York.

Pratt & Whitney Co., Hartford, Ct.

**Chain, Pocket Wheel—**

Standard Chain Co., Pittsburgh, Pa.

**Chain Pot Cleaners—**

(See Kitchen Articles, Wire.)

**Chain, Pump—**

Bridgeport Chain Co., Bridgeport, Ct.

Cleveland Galvanizing Works, Cleveland.

Garland Nut & Rivet Co., Rankin Station, Pa.

Oneida Community, Ltd., Kenwood, N. Y.

**Chain Pump Fixtures—**

(See Pump Fixtures, Chain.)

**Chain Pump Tubing—**

(See Tubing, Chain Pump.)

**Chains, Agricultural—**

Bridgeport Chain Co., Bridgeport, Ct.

Oneida Community, Ltd., Kenwood, N. Y.

Standard Chain Co., Pittsburgh, Pa.

**Chains and Locks, Bag-**

kage—

Ames Sword Co., Chicopee, Mass.

**Chains, Binding—**

Standard Chain Co., Pittsburgh, Pa.

**Chains, Bird Cage—**

Parker Wire Goods Co., Worcester, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Chains, Bushed—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

**Chains, Cart—**

Bridgeport Chain Co., Bridgeport, Ct.  
Oneida Community, Ltd., Kenwood, N. Y.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Dog and Halter—**

Bridgeport Chain Co., Bridgeport, Ct.  
Covert Mfg. Co., West Troy, N. Y.  
Oneida Community, Ltd., Kenwood, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.  
Standard Chain Co., Pittsburgh, Pa.  
Wire Goods Co., Worcester, Mass.

**Chains, Flat Link—**

Bridgeport Chain Co., Bridgeport, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
Thomas Morton, 169 Elm St., New York.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Oneida Community, Ltd., Kenwood, N. Y.  
Smith & Egge Mfg. Co., Bridgeport, Ct.

**Chains, Flower Basket—**

Wire Goods Co., Worcester, Mass.

**Chains, Harness—**

Bridgeport Chain Co., Bridgeport, Ct.  
Covert Mfg. Co., West Troy, N. Y.  
Covert's Saddlery Works, Farmer, N. Y.  
Andrew B. Hendryx Co., New Haven, Ct.  
Metal Stamping Co., Niagara Falls, N. Y.  
Oneida Community, Ltd., Kenwood, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Hoel—**

Bridgeport Chain Co., Bridgeport, Ct.  
Covert Mfg. Co., West Troy, N. Y.  
Oneida Community, Ltd., Kenwood, N. Y.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Hobb—**

Standard Chain Co., Pittsburgh, Pa.

**Chains, Hog—**

M. Lanz & Sons, Pittsburgh, Pa.

**Chains, Hydrant—**

Bridgeport Chain Co., Bridgeport, Ct.  
Oneida Community, Ltd., Kenwood, N. Y.

**Chains, Ice Elevator—**

Eastern Bolt & Nut Co., Providence, R. I.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Rhode Island Tool Co., Providence, R. I.

**Chains, Key—**

Ames Sward Co., Chicopee, Mass.  
Bridgeport Chain Co., Bridgeport, Ct.  
Metal Stamping Co., Niagara Falls, N. Y.  
Oneida Community, Ltd., Kenwood, N. Y.  
Smith & Egge Mfg. Co., Bridgeport, Ct.

**Chains, Log, Detachable—**

Buhl Malleson Co., Detroit, Mich.  
Jeffrey Mfg. Co., Columbus, O.  
Link-Belt Engineering Co., Nicetown,  
Philadelphia, Pa.

**Chains, Log, Rafting, &c.—**

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.  
Jas. McKay & Co., Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Measuring—**

Keuffel & Esser Co., 127 Fulton St.,  
New York.

**Chains, Picket, Stake, &c.—**

Bridgeport Chain Co., Bridgeport, Ct.  
Oneida Community, Ltd., Kenwood, N. Y.

**Chains, Picture—**

Bridgeport Chain Co., Bridgeport, Ct.  
Oneida Community, Ltd., Kenwood, N. Y.  
Emerson P. Turner Mfg. Co., Nor-  
wich, Ct.

**Chains, Post—**

Bridgeport Chain Co., Bridgeport, Ct.  
Covert Mfg. Co., West Troy, N. Y.  
Oneida Community, Ltd., Kenwood, N. Y.

**Chain, Sprocket—**

Standard Chain Co., Pittsburgh, Pa.

**Chains, Sash and Attach-  
ments—**

Bridgeport Chain Co., Bridgeport, Ct.  
Thomas Morton, 169 Elm St., New York.  
Oneida Community, Ltd., Kenwood, N. Y.  
Pullman Mfg. Co., Rochester, N. Y.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
Wire Goods Co., Worcester, Mass.

**Chains, Ship—**

New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Sling—**

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Staking Out—**

Standard Chain Co., Pittsburgh, Pa.

**Chains, Stud—**

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.  
Jas. McKay & Co., Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Switch—**

Standard Chain Co., Pittsburgh, Pa.

**Chain, Steam Shovel and  
Dredge—**

Standard Chain Co., Pittsburgh, Pa.

**Chains, Trace—**

Bridgeport Chain Co., Bridgeport, Ct.  
Oneida Community, Ltd., Kenwood, N. Y.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Transom—**

Bridgeport Chain Co., Bridgeport, Ct.  
Thomas Morton, 169 Elm St., New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Chains, Tubular Steel,  
Brest—**

Metal Stamping Co., Niagara Falls, N. Y.

**Chains, Wagon and Fancy—**

Bridgeport Chain Co., Bridgeport, Ct.  
Jas. McKay & Co., Pittsburgh, Pa.  
Oneida Community, Niagara Falls, N. Y.  
Standard Chain Co., Pittsburgh, Pa.

**Chains, Weldless—**

Bridgeport Chain Co., Bridgeport, Ct.  
Oneida Community, Ltd., Kenwood, N. Y.

**Chains, Well—**

Bridgeport Chain Co., Bridgeport, Ct.  
Cleveland Galvanizing Works, Cleveland,  
O.

**Chains, Well—**

Oneida Community, Ltd., Kenwood, N. Y.

**Chair Bottom Knives—**

Union Mfg. Co., New Britain, Ct.  
(See Knives, Machines.)

Garvin Machine Co., Spring and Varick  
Sta., New York.  
Potter & Johnston Machine Co., Paw-  
tucket, R. I.  
Pratt & Whitney Co., Hartford, Ct.

#### MERCHANTS.

Hill, Clarke & Co., Boston, Mass.  
**Chucks.**  
Cushman Chuck Co., Hartford, Ct.  
Garvin Machine Co., Spring and Varick  
Sta., New York.  
E. Harrington, Son & Co., Philadelphia.  
Hogson & Pettis Mfg. Co., New Haven.  
E. Horton & Son Co., Windsor Locks, Ct.  
Hurwood Mfg. Co., Bridgeport, Ct.  
Ideal Machine Co., Hartford, Ct.  
Morse Twist Drill & Machine Co., New  
Bedford, Mass.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pratt Chuck Co., Frankfort, N. Y.  
Pratt & Whitney Co., Hartford, Ct.  
D. Saunders' Sons, Yonkers, N. Y.  
Skinner Chuck Co., New Britain, Ct.  
Standard Tool Co., Cleveland, O.  
Union Mfg. Co., New Britain, Ct.  
Westcott Chuck Co., Oneida, N. Y.  
D. E. Whiton Mach. Co., New London, Ct.

**Chucks, Automatic Lever.**  
Potter & Johnston Machine Co., Paw-  
tucket, R. I.

**Chucks, Centering.**  
Cushman Chuck Co., Hartford, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.  
Skinner Chuck Co., New Britain, Ct.  
Dwight Slate Machine Co., Hartford, Ct.  
Union Mfg. Co., New Britain, Ct.  
Westcott Chuck Co., Oneida, N. Y.  
D. E. Whiton Mach. Co., New London, Ct.

**Chucks, Drill.**  
R. H. Brown & Co., New Haven, Ct.  
Butler Chuck Co., Greenfield, Mass.  
Cleveland Twist Drill Co., Cleveland, O.  
Cushman Chuck Co., Hartford, Ct.  
Detroit Twist Drill Co., Detroit, Mich.  
Goodell-Pratt Co., Greenfield, Mass.  
Hogson & Pettis Mfg. Co., New Haven, Ct.  
E. Horton & Son Co., Windsor Locks, Ct.  
Jacobs Mfg. Co., Hartford, Ct.  
C. E. Jennings Co., 42 Murray St., N. Y.  
William G. Le Count, South Norwalk, Ct.  
Millers Falls Co., 28 Warren St., N. Y.  
Morse Twist Drill & Machine Co., New  
Bedford, Mass.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Pratt & Whitney Co., Hartford, Ct.  
D. Saunders' Sons, Yonkers, N. Y.  
Skinner Chuck Co., New Britain, Ct.  
Smith & Edge Mfg. Co., Bridgeport, Ct.  
Union Mfg. Co., New Britain, Ct.  
Westcott Chuck Co., Oneida, N. Y.  
D. E. Whiton Mach. Co., New London, Ct.  
Wiley & Russell Mfg. Co., Greenfield,  
Mass.

**Chucks, Emery Wheel Bush-  
ing.**  
Norton Emery Wheel Co., Worcester,  
Mass.

**Chucks for Boring and  
Turning Mills.**  
Fairbanks Co., 416 Broome St., New York.  
E. Horton & Son Co., Windsor Locks, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Union Mfg. Co., New Britain, Ct.  
Westcott Chuck Co., Oneida, N. Y.  
**Chucks for Cutting Off Ma-  
chines.**

E. Horton & Son Co., Windsor Locks, Ct.  
**Chucks, Independent, Uni-  
versal.**

E. Horton & Son Co., Windsor Locks, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Potter & Johnston Machine Co., Paw-  
tucket, R. I.  
Westcott Chuck Co., Oneida, N. Y.

**Chucks, Lathe.**  
Cushman Chuck Co., Hartford, Ct.  
Fairbanks Co., 416 Broome St., New York.  
E. Harrington, Son & Co., Philadelphia.  
Hogson & Pettis Mfg. Co., New Haven, Ct.  
E. Horton & Son Co., Windsor Locks, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Pratt Chuck Co., Frankfort, N. Y.  
Pratt & Whitney Co., Hartford, Ct.  
Skinner Chuck Co., New Britain, Ct.  
Union Mfg. Co., New Britain, Ct.  
Westcott Chuck Co., Oneida, N. Y.  
D. E. Whiton Mach. Co., New London, Ct.

#### MERCHANTS.

George E. Affleck, 107 Liberty St., New  
York.  
Hill, Clarke & Co., Boston, Mass.  
Prentiss Tool & Supply Co., 115 Liberty  
St., New York.

**Chucks, Milling Machine.**  
E. Horton & Son Co., Windsor Locks, Ct.  
Massey Vise Co., 30 S. Canal St., Chi-  
cago, Ill.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Skinner Chuck Co., New Britain, Ct.  
Union Mfg. Co., New Britain, Ct.  
Westcott Chuck Co., Oneida, N. Y.

#### MERCHANTS.

Hill, Clarke & Co., Boston, Mass.  
**Chucks, Planer.**  
Fox Machine Co., Grand Rapids, Mich.  
E. Harrington, Son & Co., Philadelphia.  
Hollands Mfg. Co., Erie, Pa.  
Massey Vise Co., 30 S. Canal St., Chi-  
cago, Ill.  
New Haven Mfg. Co., New Haven, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.

Pedrick & Ayer Co., 87 Liberty St., N. Y.  
Pratt & Whitney Co., Hartford, Ct.  
Francis Reed Co., Worcester, Mass.  
Skinner Chuck Co., New Britain, Ct.  
Tower & Lyon Co., 95 Chambers St.,  
New York.  
Union Mfg. Co., New Britain, Ct.

**Chucks, Spinning.**  
E. W. Bliss Co., Brooklyn, N. Y.

**Chucks, Tapping.**  
E. Horton & Son Co., Windsor Locks, Ct.

**Chucks, Wire.**  
American Watch Tool Co., Waltham,  
Mass.

Pratt & Whitney Co., Hartford, Ct.  
**Church Chimes.**  
(See Chimes, Church and Band.)

**Churn Machinery and Tools—**

Peter Gerlach Co., Cleveland, O.

**Churns—**

Richmond Cedar Works, Richmond, Va.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Chutes, Coal—**

Garry Iron & Steel Co., Cleveland, O.

C. W. Hunt Co., West New Brighton, N. Y.

L. O. Koven & Bro., 50 Cliff St., N. Y.

McCullough Iron Co., Wilmington, Del.

Pennsylvania Engineering Works, New Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Williams, White & Co., Moline, Ill.

**Chutes, Garbage—**

Hill Dryer Co., Worcester, Mass.

**Chutes, Grain, &c.—**

L. O. Koven & Bro., 50 Cliff St., N. Y.

**Cider Mills—**

(See Mills, Cider.)

**Cider Mill Teeth—**

(See Teeth, Cider Mill.)

**Cinder Mill—**

(See Mills, Cinder.)

**MERCHANTS.**  
Filling & Crane, Girard Bldg., Philadelphia, Pa.

**Circular Saw Bench—**

(See Bench, Circular Saw.)

**Circular Saws—**

(See Saws, Circular.)

**Cistern Pumps—**

(See Pumps, Cistern.)

**Clam Hooks—**

(See Hooks, Clam.)

**Clamp Dogs, Drills—**

(See Dogs, Drills.)

**Clamps and Slide Rope—**

Covett's Saddlery Works, Farmer, N. Y.

A. Leschen & Sons Rope Co., St. Louis, Mo.

**Clamps, Belt—**

Billings & Spencer Co., Hartford, Ct.

R. Bliss Mfg. Co., Pawtucket, R. I.

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Goodell-Fratt Co., Greenfield, Mass.

**Clamps, Boat Builders—**

James L. Taylor, Newark, N. Y.

**Clamps, Boiler—**

Wm. G. Le Count, So. Norwalk, Ct.

**Clamps, Box and Case—**

R. C. Jenkinson & Co., Newark, N. J.

**Clamps, Cabinet, Carpenters', Machinists', Woodworkers', &c.—**

Armstrong Mfg. Co., Bridgeport, Ct.

Athol Machine Co., Athol, Mass.

Chas. H. Besly & Co., 10 and 12 N. Canal St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

R. Bliss Mfg. Co., Pawtucket, R. I.

Fanner Mfg. Co., Cleveland, O.

Grand Rapids Hardware Co., Grand Rapids, Mich.

Hammer & Co., Branford, Ct.

Holiday Mfg. & Engineering Co., 160 Bunker St., Chicago, Ill.

Wm. G. Le Count, South Norwalk, Ct.

Ohio Tool Co., Columbus, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

L. S. Starrett Co., Athol, Mass.

Stover Mfg. Co., Freeport, Ill.

James L. Taylor, Newark, N. J.

A. C. Williams, Ravenna, O.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Wrightsville Hardware Co., Wrightsville, Pa.

**Clamps, Carriage—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Clamps, Carriage and Truckmakers' Spring—**

James L. Taylor, Newark, N. J.

**Clamps, Encircling—**

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

**Clamps, Flanging—**

Hilles & Jones Co., Wilmington, Del.

**Clamps, Girder—**

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

**Clamps, Guard Rail—**

American Valve & Meter Co., Cincinnati, O.

**Clamps, Guy—**

M. Lanz & Sons, Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

**Clamps, Harness—**

Root Bros. Co., Plymouth, O.

**Clamps, Hose—**

(See Hose Attachments.)

**Clamps, Key Seat—**

Hogson & Pettis Mfg. Co., New Haven, Ct.

**Clamps, Lineman's—**

John H. Graham & Co., 113 Chambers St., New York.

Smith & Hemenway Co., 236 Broadway, New York.

**Clamps, Parallel—**

Chas. H. Besly & Co., 10-12 No. Canal St., Chicago, Ill.

**Clamps, Flow, Nitted—**

Upon Nut Co., Cleveland, O.

**Clamps, Pole—**

(See Telegraph and Telephone Pole Supplies.)

**Clamps, Saw—**

Henry Diston & Sons, Philadelphia, Pa.

Wm. G. Le Count, So. Norwalk, Ct.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Tower & Lyon Co., 95 Chambers St., New York.

**Clamps, Splicing—**

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John H. Graham & Co., 113 Chambers St., New York.

Otis A. Smith, Rockfall, Ct.

Smith & Hemenway Co., 236 Broadway, New York.

**Clamps, Steel—**

W. G. Le Count, South Norwalk, Ct.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

James L. Taylor, Newark, N. J.

**Clamps, Structural Work—**

James L. Taylor, Newark, N. J.



**Clamps, Toolmakers'—**

L. S. Starrett Co., Athol, Mass.  
James L. Taylor, Newark, N. J.

**Clamps, Trunk, Case and Box—**

R. C. Jenkinson & Co., Newark, N. J.  
J. H. Sessions & Son, Bristol, Ct.

**Clamps, Vice—**

Prentiss Vice Co., 44 Barclay St., N. Y.  
J. E. Wakefield, Worcester, Mass.

**Clamps, Wire—**

Otis A. Smith, Rockfall, Ct.

**Clamps, Wire Rope—**

Boderick & Bascom Rope Co., St. Louis, Mo.

Bronson-Walton Co., Cleveland, O.

Durable Wire Rope Co., Boston, Mass.

M. Lanz & Sons, Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis.

Macomber & Whyte Rope Co., 19-21 So.

Canal St., Chicago, Ill.

Wire Goods Co., Worcester, Mass.

**Clamps, Wrench—**

J. E. Wakefield, Worcester, Mass.

**Clapboard Gauges, Markers—**

(See Markers, Clapboard.)

**Clapboard Machinery—**

Lane Mfg. Co., Montpelier, Vt.

**Clamps, Hoop and Nail—**

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

E. H. Titchener & Co., Binghamton, N. Y.

**Claws, Nail—**

Sargent & Co., 151 Leonard St., N. Y.

**Claws, Tack—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.

Keystone Drop Forge Works, Chester, Pa.

H. H. Mayhew Co., Shelburne Falls, Mass.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Sargent & Co., 151 Leonard St., N. Y.

Smith & Hemenway Co., 236 Broadway,

New York.

Springfield Machine Screw Co., Spring-

field, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Wrightsville Hardware Co., Wrightsville,

Pa.

**Clay, Fire—**

Cyrus Borgner, 23d St. above Race, Phila-

delphia, Pa.

E. M. Hadrich, 311 1-2 Walnut St.,

Philadelphia, Pa.

Henry Maurer & Son, 420 E. 23d St., N. Y.

S. Obermayer Co., Cincinnati, O.

Ostrander Fire Brick Co., Troy, N. Y.

J. W. Paxson Co., Philadelphia, Pa.

Portsmouth Harbison-Walker Co., Ports-

mouth, O.

Freabrey Fire Brick Works, Taunton,

Mass.

Queen's Run Fire Brick Co., Lock Haven,

Pa.

J. D. Smith Foundry Supply Co., Cleve-

land, O.

M. D. Valentine & Bro. Co., Woodbridge,

N. J.

**Clay Shovels—**

(See Shovels, Brick.)

**Clay Working Machinery—**

Chambers Bros. & Co., 52d St. below Lan-

caster Ave., Philadelphia, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

United Engineering & Foundry Co., Pitts-

burgh, Pa.

**Cleaners, Boiler—**

(See Cleaners, Flue.)

**Cleaners, Comb—**

Geo. E. Gay, Augusta, Me.

**Cleaners, Drain—**

American Fork & Hoe Co., Cleveland, O.

Iwan Bros., Strettor, Ill.

Mt. Pleasant Tool Co., Mt. Pleasant, Pa.

St. Louis Shovel Co., St. Louis, Mo.

Star Shovel & Range Co., Vincennes, Ind.

**Cleaners, File—**

Nicholson File Co., Providence, R. I.

**Cleaners, Flue—**

Fanner Mfg. Co., Cleveland, O.

Gem Mfg. Co., Pittsburgh, Pa.

S. M. Howes Co., Boston, Mass.

Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.

E. Keeler Co., Williamsport, Pa.

Millers Falls Co., 23 Warren St., N. Y.

Osborn Mfg. Co., Cleveland, O.

Parson Mfg. Co., 329 Broadway, N. Y.

J. W. Paxson Co., Philadelphia, Pa.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Wire Goods Co., Worcester, Mass.

**Cleaners, Lamp Chimney—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Cleaners, Sewer—**

Osborn Mfg. Co., Cleveland, O.

**Cleaners, Shot Gun—**

J. Stevens Arms & Tool Co., Chicopee

Falls, Mass.

**Cleaners, Sidewalk—**

American Fork & Hoe Co., Cleveland, O.

Continental Tool Co., Frankfort, N. Y.

Iowa Farming Tool Co., Fort Madison Ia.

Withington & Cooley Mfg. Co., Jackson,

Mich.

**Cleaners, Sink—**

New York Stamping Co., Brooklyn, N. Y.

Osborn Mfg. Co., Cleveland, O.

Wire Goods Co., Worcester, Mass.

**Cleaners, Window—**

Western Wire Goods Co., Buffalo, N. Y.

**Cleaver Springs—**

(See Springs, Clearer.)

**Cleats, Line and Rope—**

Bethlehem Foundry & Machine Co., So.

Bethlehem, Pa.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

R. W. Whitehurst Co., Norfolk, Va.

A. C. Williams, Ravenna, O.

Wire Goods Co., Worcester, Mass.

**Cleavers, Butcher, &c.—**

Geo. H. Bishop & Co., Cincinnati, O.

John Chatillon & Sons, 85-93 Cliff St.,

New York.

C. & A. Hoffman, Frankford, Philadel-

phia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

L. & I. J. White Co., Buffalo, N. Y.

**Clevises, Malleable—**

Illinois Malleable Iron Co., 30-32 W. Mon-

roe St., Chicago, Ill.

Stowell Mfg. & Foundry Co., South Mil-

waukee, Wis.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Climbers, Lineman's**—  
Smith & Hemenway Co., 236 Broadway,  
New York.

**Clinch Rings, Rivets**—  
(See Rings, Rivets.)

**Clippers, Bolt and Rivet**—  
Chambers Bros. & Co., 524 St., below  
Lancaster Ave., Philadelphia, Pa.  
Helwig Mfg. Co., St. Paul, Minn.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

H. K. Porter, Everett, Mass.

**Clippers, Finger Nail**—  
H. C. Cook & Co., Ansonia, Ct.  
Little River Mfg. Co., Seymour, Ct.  
Smith & Hemenway Co., 236 Broadway,  
New York.

**Clippers, Horse and Toilet**—  
American Shearer Mfg. Co., Nashua,  
N. H.  
Hermann Boker & Co., 101-103 Duane St.,  
New York.

Brown & Sharpe Mfg. Co., Providence,  
R. I.

Chicago Flexible Shaft Co., 124 La Salle  
Ave., Chicago, Ill.

John H. Graham & Co., 113 Chambers St.,  
New York.

Edward S. Hotchkiss, Bridgeport, Ct.  
Wiebusch & Hilger, 157 Chambers St.,  
New York.

**Clippers, Power, Horse**—  
American Shearer Mfg. Co., Nashua, N. H.  
Chicago Flexible Shaft Co., 124-126 La  
Salle Ave., Chicago, Ill.

**Clippers, Stay Bolt**—  
(See Cutters, Stay Bolt.)

**Clipping Blade Grinders,  
Horse**—  
(See Grinders, Horse Clipping Blade.)

**Clips, Axle, Spring Bar,  
&c.**—

Blakeslee Forging Co., Plantville, Ct.  
E. D. Clapp Mfg. Co., Auburn, N. Y.  
Richard Eccles Co., Auburn, N. Y.  
Franklin Moore Co., Winsted, Ct.  
Scranton Forging Co., Scranton, Pa.  
M. Seward & Son Co., New Haven, Ct.  
Upson Nut Co., Cleveland, O.

**Clips, Carriage Trimmers',  
&c.**—

United States Clothes Pin Co., Mont-  
pelier, Vt.

**Clips, Connecting, Uphol-  
stering Springs**—

Cleveland Wire Spring Co., Cleveland, O.

**Clips, Damper**—

Adams Co., Dubuque, Ia.  
Berger Brothers Co., 231-237 Arch St.,  
Philadelphia, Pa.

Brohard Co., Hutchinson St. and Co-  
lumbia Ave., Philadelphia, Pa.

Sidney Shepard & Co., Buffalo, N. Y.  
Stover Mfg. Co., Freeport, Ill.

Taylor & Boggis Foundry Co., Cleve-  
land, O.

**Clips, Paper**—

(See Stationers' Hardware.)

**Clips, Toe**—

Bevin Bros. Mfg. Co., E. Hampton, Ct.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
Wire Goods Co., Worcester, Mass.

**Clips, Trolley Wire**—

(See Trolley Materials, Electric.)

**Clips, Wire Rope**—

Billings & Spencer Co., Hartford, Ct.  
Broderick & Bascom Rope Co., St. Louis,  
Mo.

Cincinnati Railway Supply Co., Cincin-  
nati, O.

Durable Wire Rope Co., Boston, Mass.

Mathew Lanz & Sons, Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis.

Williamsport Wire Rope Co., Williams-  
port, Pa.

**Clock Movements**—

E. Howard Clock Co., Boston, Mass.

**Clocks**—

American Steam Gauge & Valve Mfg. Co.,  
Boston, Mass.

Goodwin & Kintz Co., Winsted, Ct.

E. Howard Clock Co., Boston, Mass.

C. Nanz & Co., 127 Duane St., New York.

Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clocks, Electric**—

E. Howard Co., Boston, Mass.

Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clocks, House, Office, &c.**—

E. Howard Clock Co., Boston, Mass.

Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clocks, Locomotive and En-  
gine Room**—

American Steam Gauge & Valve Mfg. Co.,  
Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston,  
Mass.

E. Howard Clock Co., Boston, Mass.

Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clocks, Marine**—

American Steam Gauge & Valve Mfg. Co.,  
Boston, Mass.

Ashton Valve Co., Boston, Mass.

E. Howard Clock Co., Boston, Mass.  
Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clocks, Non-Magnetic**—

Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clock Springs**—

(See Springs.)

**Clocks, Programme**—

E. Howard Clock Co., Boston, Mass.  
Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

**Clocks, Tower**—

E. Howard Clock Co., Boston, Mass.

**Clocks, Watchman's**—

Holtzer-Cabot Electric Co., Boston, Mass.  
E. Howard Clock Co., Boston, Mass.

C. Nanz & Co., 127 Duane St., N. Y.

W. R. Ostrander & Co., 22 Dey St., N. Y.

Riggs & Bro., 310 Market St., Philadel-  
phia, Pa.

Simplex Time Recorder Co., Gardner,  
Mass.

Waggoner Watchman Clock Co., Grand  
Rapids, Mich.

**Closet Connections**—

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Randolph-Cloves Co., Waterbury, Ct.

**Closets, Clothes**—

(See Lockers, Office and Shop.)

**Cloth, Boltin—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Estey Wire Works Co., 59 Fulton St., New York.

**Cloth, Carborundum—**

Carborundum Co., Niagara Falls, N. Y.

**Cloth Dryers—**

(See Dryers, Cloth and Cotton.)

**Cloth, Emery—**

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.

Carborundum Co., Niagara Falls, N. Y.

**Clothes Bars—**

(See Racks, Clothes.)

**Clothes Brushes—**

(See Brushes, Silver Plated.)

**Clothes Dryers, Hangers.**

&c.—

(See Dryers, Hangers, &c.)

**Clothes Line Holders.**

**Hooks &c.—**

(See Holders, Hooks, &c.)

**Clothes Pin Machinery—**

Humphrey Machine Co., Keene, N. H.

**Cloth, Motor—**

Standard Paint Co., 100 William St., New York.

**Cloth, Piano—**

I. E. Palmer, Middletown, Ct.

**Cloth, Tracing—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Cloth, Window Screen**

**Wire—**

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Gilbert & Bennett Mfg. Co., 27 Broadway, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred. J. Meyers Mfg. Co., Hamilton, O.

New Jersey Wire Cloth Co., Trenton, N. J.

I. E. Palmer, Middletown, Ct.

W. S. Tyler Co., Cleveland, O.

Wickwire Bros., Cortland, N. Y.

**Cloth, Wire—**

(See also Cloth, Window Screen.)

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 27 Broadway, New York.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred. J. Meyers Mfg. Co., Hamilton, O.

New Jersey Wire Cloth Co., Trenton, N. J.

W. S. Tyler Co., Cleveland, O.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

**Clubs, Indian—**

E. B. Estes & Sons, 45-47 John St., N. Y.

Piqua Handle & Mfg. Co., Piqua, O.

John Sommer's Sons, Newark, N. J.

**Cloth Couplings, Pulley—**

(See Couplings, Pulley.)

**Clothes, Friction—**

American Tool & Machine Co., Boston, Mass.

E. W. Bliss Co., Brooklyn, N. Y.

Boston Gear Works, Boston, Mass.

Brown Hoisting Machinery Co., Inc., Cleveland, O.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Carlyle Johnson Machine Co., Hartford, Ct.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

New Haven Mfg. Co., New Haven, Ct.

Poole Engineering & Machine Co., Baltimore, Md.

Pratt & Whitney Co., Hartford, Ct.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wolf Co., 523 N. 23d St., Philadelphia, Pa.

**MERCHANTS.**

Brown-Wales Co., Boston, Mass.

W. E. Caldwell Co., Louisville, Ky.

Fairbanks Co., 416 Broome St., New York.

**Clutches, Jaw—**

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

**Clutches, Magnetic—**

Electric Controller & Supply Co., Cleveland, O.

**Clutches, Wood Split Pulley—**

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

**Coach Mountings, Screws—**

(See Mountings, Screws.)

**Coal—**

Bessemer Coke Co., Pittsburgh, Pa.

Bon Air Coal & Iron Co., Nashville, Tenn.

Columbus Iron & Steel Works, Columbus, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

La Belle Iron Works Co., Steubenville, O.

Maynard Bros., Columbus, O.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Virginia Iron, Coal & Coke Co., Bristol, Va.

Washington Coal & Coke Co., Pittsburgh, Pa.

**MERCHANTS.**

Bole, Ross & Co., Pittsburgh, Pa.

Justice Cox, Jr., & Co., Ltd., Bullitt Bldg., Philadelphia, Pa.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.  
J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.  
Charles G. Shepard, Buffalo, N. Y.  
Francis Wister, 1437 Chestnut St., Philadelphia, Pa.

**Coal Cars, Hods, Scales, &c.**

(See Cars, Hods, Scales, &c.)

**Coal Compressing Machinery**

(See Compressing Machinery, Coal.)

**Coal Cutters**

General Electric Co., Schenectady, N. Y.  
Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
Jeffrey Mfg. Co., Columbus, O.

**Coal Handling Machinery**

C. O. Bartlett & Snow Co., Cleveland, O.  
Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Brown Hoisting Machinery Co., Cleveland, O.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 11th St., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis, Mo.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

Williams, White & Co., Moline, Ill.

**MERCHANTS.**

Carlin Machinery & Supply Co., Allegheny, Pa.

McGeorge & Sons, Cleveland, O.

Wickes Bros., Saginaw, Mich.

**Coal Handling Machinery, Electric**

General Electric Co., Schenectady, N. Y.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Coal Hods**

(See Iron Work, Builders'.)

**Coal Hoppers on Scales**

F. H. Evans, Brooklyn, N. Y.

**Coaling Stations, Locomotive**

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Brown Hoisting Machinery Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

C. W. Hunt Co., West New Brighton, N. Y.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Sheffield Car Co., Three Rivers, Mich.

**Coal Lands**

J. H. Hillman & Son, Pittsburgh, Pa.

**Coal Mining Machinery**

A. Leschen & Sons Rope Co., St. Louis, Mo.

**Coal Stoves**

(See Stoves, Coal and Wood.)

**Coal Washing Machinery**

Jeffrey Mfg. Co., Columbus, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Coal Working Machinery**

A. Leschen & Sons Rope Co., St. Louis, Mo.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Coat Hooks, Racks**

(See Hooks, Racks.)

**Coating, Liquid Asphalt**

Stowell Mfg. Co., Jersey City, N. J.

**Coating, Wire Rope**

Ironsides Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis, Mo.

**Cobblers' Outfits**

Enterprise Mfg. Co., Philadelphia, Pa.

Root Bros. Co., Plymouth, O.

Louis Sacks Iron Foundry, Newark, N. J.

Wrightsville Hardware Co., Wrightsville, Pa.

**Cobblers' Shoe Nails**

(See Nails, Shoe, Cobblers', Channel, &c.)

**Cockeyes, Swivel**

(See Eyes, Cock, Swivel.)

**Cock Grinders**

(See Grinders, Cock.)

**Cocks, Brass**

Crane Co., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

John H. Graham & Co., 113 Chambers St., New York.

Humphreys Mfg. Co., Mansfield, O.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Jenkins Bros., 71 John St., New York.

Landers, Frary & Clark, New Britain, Ct.

Lukenheimer Co., Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

Nolte Brass Co., Springfield, O.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Walworth Mfg. Co., Boston, Mass.

**Cocks, Gauge**

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

Crane Co., Chicago, Ill.

E. M. Dart Mfg. Co., Providence, R. I.

Julian D'Este Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.

Jenkins Bros., 71 John St., New York.

Lukenheimer Co., Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

Walworth Mfg. Co., Boston, Mass.

**Cocks, Iron**

(See Faucets, Iron.)

**Coffee Mills, Foot Power**

Slotkin & Praglin, 210-212 Canal St., N. Y.

**Coffee Mills, Pot Stands**

**Roasters**

(See Mills, Stands, Roasters.)

**Coffee Pots**

(See Pots, Tea and Coffee.)

**Coffee Sets**

(See Sets, Silver Plated.)

**Coffin Hardware**

New Britain Hardware Mfg. Co., New Britain, Ct.

Sargent & Co., 151 Leonard St., N. Y.

**Coil Chain**

(See Chain, Coil.)

**Coilers, Chain Link**

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Collars, Wire—**

Gavin Machine Co., Spring and Varick Sts., New York.  
 E. J. Manville Machine Co., Waterbury, Ct.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Coiling Machines, Spring—**

(See Spring Coiling Machines.)

**Coils, Copper Steam—**

E. B. Badger & Sons Co., Boston, Mass.

**Coils, Pipe—**

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

McNab & Harlin Mfg. Co., 56 John St., New York.

National Pipe Bending Co., New Haven, Ct.

Walworth Mfg. Co., Boston, Mass.

Whitlock Coil Pipe Co., Hartford, Ct.

**Coiling Machinery—**

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Falkenau-Sinclair Machinery Co., 109 N. 22d St., Philadelphia, Pa.

Chas. Lettler & Co., Brooklyn, N. Y.

Standard Machinery Co., Providence, R. I.

**Coke—**

Bessemer Coke Co., Pittsburgh, Pa.

Bon Air Coal & Iron Co., Nashville, Tenn.

Columbus Iron & Steel Co., Columbus, O.

J. K. Dimmick & Co., 2023 New Land Title Bldg., Philadelphia, Pa.

Field-Evans Iron Co., Cincinnati, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

Maynard Bros., Columbus, O.

Virginia Iron, Coal & Coke Co., Bristol, Va.

Washington Coal & Coke Co., Pittsburgh, Pa.

**MERCHANTS.**

Reed F. Blair & Co., Pittsburgh, Pa.

Bole, Ross & Co., Pittsburgh, Pa.

Bourne-Fuller Co., Cleveland, O.

Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Justice Cox, Jr., & Co., Ltd., Bullitt Building, Philadelphia, Pa.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

J. H. Hillman & Son., Pittsburgh, Pa.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

J. J. Mohr, 131 So. 4th St., Philadelphia, Pa.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Charles C. Shepard, Buffalo, N. Y.

Francis Wister, 1437 Chestnut St., Philadelphia, Pa.

**Coke, Crushed—****MERCHANTS.**

J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

**Coke Forks—**

(See Forks, Coke.)

**Coke Oven Construction—**

(See Ovens, Coke, Construction.)

**Coke Oven Pushers—**

(See Pushers, Coke Oven.)

**Cold Chisels—**

(See Chisels, Cold.)

**Cold Sheets—**

(See Sheets, Cold.)

**Collar Screws—**

(See Screws, Collar.)

**Collars, Horse and Mule—**

Morley Bros., Saginaw, Mich.

**Collars, Shafting—**

Borden & Sellick Co., 48 Lake St., Chicago, Ill.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 12th St. & Allegheny Ave., Philadelphia, Pa.

Cumberland Steel Co., Cumberland, Md.

Dodge Mfg. Co., Mishawaka, Ind.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Keystone Drop Forge Works, Chester, Pa.

Nazareth Foundry & Machine Co., Nazareth, Pa.

Rhode Island Tool Co., Providence, R. I.

B. F. Sturtevant Co., Boston, Mass.

Wickes Bros., Saginaw, Mich.

J. H. Williams & Co., Brooklyn, N. Y.

**MERCHANTS.**

Brown-Wales Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.

**Collars, Stove Pipe—**

S. M. Hovos Co., Boston, Mass.

**Collectors, Dust—**

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

Case Mfg. Co., Columbus, O.

Fairbanks Co., 416 Broome St., New York.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

**Collectors, Grass—**

(See Cutters, Grass.)

**Colors, Artists' Tube—**

Devoc & Reynolds Co., 176 Randolph St., Chicago, Ill.

**Colors, Artists' Water—**

Devoc & Reynolds Co., 176 Randolph St., Chicago, Ill.

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Colors, Distemper—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.

Devoc & Reynolds Co., 176 Randolph St., Chicago, Ill.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Colors, Dry Paint—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.

Devoc & Reynolds Co., 176 Randolph St., Chicago, Ill.

Garry Iron & Steel Co., Cleveland, O.

John Lucas & Co., Race and 4th Sts., Philadelphia, Pa.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Colors, France.**

Wadsworth-Howland Co., Indiana Ave. & 13th St., Chicago, Ill.

**Colors in Japan.**

Devco & Reynolds Co., 176 Randolph St., Chicago, Ill.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Colors in Oil.**

Wm. Connors Paint Mfg. Co., Troy, N. Y.  
Devco & Reynolds Co., 176 Randolph St., Chicago, Ill.

John Lucas & Co., Race and 4th Sts., Philadelphia, Pa.

Eugene E. Nice, 272-274 So. 2d St., Philadelphia, Pa.

United States Gutta Percha Paint Co., Providence, R. I.

Wadsworth-Howland Co., Indiana Ave. & 13th St., Chicago, Ill.

**Colors, Mortar.**

Wm. Connors Paint Mfg. Co., Troy, N. Y.  
Garry Iron & Steel Co., Cleveland, O.

**Colors, School.**

Devco & Reynolds Co., 176 Randolph St., Chicago, Ill.

**Columns.**

(See Buildings and Bridges.)

**Columns, Veranda.**

(See Iron Work, Builders'.)

**Combination Locks, Pliers.**

(See Locks, Pliers.)

**Combs, Curry.**

F. E. Kohler & Co., Canton, O.  
Metal Stamping Co., Niagara Falls, N. Y.  
New York Stamping Co., Brooklyn, N. Y.

Richard Mfg. Co., Bloomsburg, Pa.  
Stover Mfg. Co., Freeport, Ill.

**Combs, Mane and Tail.**

Covert's Saddlery Works, Farmer, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.

**Commercial Literature.**

Francis I. Maule, 402 Sansom St., Philadelphia, Pa.

**Commission Merchants.**

**Hardware.**

(See Agents, Hardware Manufacturers'.)

**Communion Sets.**

(See Sets, Communion, Silver Plated.)

**Commutator Bars and Segments.**

(See Bars and Segments, Commutator.)

**Commutator Brush Copper.**

(See Copper, Commutator Brush.)

**Commutators.**

(See Bars and Segments, Commutator.)

**Compasses, Dividers, &c.**

Athol Machine Co., Athol, Mass.  
Bemis & Call Hardware & Tool Co., Springfield, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

John H. Graham & Co., 113 Chambers St., New York.

Keuffel & Esser Co., 127 Fulton St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Smith & Hemenway Co., 236 Broadway, New York.

L. S. Starrett Co., Athol, Mass.

**Compasses, Marine.**

Keuffel & Esser Co., 127 Fulton St., New York.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

**Compound, Graphite Pipe Joint.**

Jos. Dixon Crucible Co., Jersey City, N. J.

**Compound, Insulating.**

Ironsides Co., Columbus, O.

**Compound, Platers' Cleaning.**

Standard Supply Co., New Haven, Ct.

**Compounds, Boiler.**

Dearborn Drug & Chemical Works, Rialto Building, Chicago, Ill.

Exeter Machine Works, Exeter, N. H.  
Ironsides Co., Columbus, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

E. W. Vanduzen Co., Cincinnati, O.

**Compounds, Case Hardening.**

(See Case Hardening Compounds.)

**Compounds for Caulking Pipe Joints.**

Smooth-On Mfg. Co., Jersey City, N. J.

**Compounds, Iron.**

Smooth-On Mfg. Co., Jersey City, N. J.

**Compressed Air Motors.**

(See Motors, Compressed Air.)

**Compressed Air Tools.**

(See also Tools, Pneumatic.)

American Air Compressor Works, 26 Cortlandt St., New York.

Chisholm & Moore Mfg. Co., Cleveland, O.  
Thos. H. Dallett & Co., York St. & Sedgely Ave., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.  
Helwig Mfg. Co., St. Paul, Minn.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Philadelphia Pneumatic Tool Co., 1038 Ridge Ave., Philadelphia, Pa.

Rand Drill Co., 128 Broadway, N. Y.  
Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

**Compressors. Air—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 American Air Compressor Works, 26 Cortlandt St., New York.  
 Barnes Mfg. Co., Mansfield, O.  
 Blaisdell Machinery Co., Bradford, Pa.  
 Blanchard Machine Co., Boston, Mass.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Builders' Iron Foundry, Providence, R. I.  
 Deming Co., Salem, O.  
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
 Filer & Stowell Co., Milwaukee, Wis.  
 General Electric Co., Schenectady, N. Y.  
 Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
 Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.  
 Lane & Bodley Co., Cincinnati, O.  
 John H. McGowan Co., Cincinnati, O.  
 McKiernan Drill Co., 120 Liberty St., N. Y.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Northern Engineering Works, Detroit, Mich.  
 Norwalk Iron Works Co., South Norwalk, Ct.  
 Pedrick & Ayer Co., 87 Liberty St., N. Y.  
 Rand Drill Co., 123 Broadway, New York.  
 Weber Gas & Gasoline Engine Co., Kansas City, Mo.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 Charles Behlen, 72 Trinity Place, N. Y.  
 Barclay M. Everson, Pittsburgh, Pa.  
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.  
 A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.  
 Lovegrove & Co., 143 N. 3d St., Philadelphia, Pa.  
 S. Obermayer Co., Cincinnati, O.  
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.  
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
 L. F. Severt's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
 William Ward Co., Pittsburgh, Pa.  
 Wickes Bros., Saginaw, Mich.

**Compressors. Gas—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 American Air Compressor Works, 26 Cortlandt St., New York.  
 Blaisdell Machinery Co., Bradford, Pa.  
 Ingersoll-Sergeant Drill Co., 26 Cortlandt St., New York.  
 Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.  
 Lane & Bodley Co., Cincinnati, O.  
 Norwalk Iron Works Co., South Norwalk, Ct.  
 Rand Drill Co., 123 Broadway, New York.

**Computing Scales—**

(See Scales, Computing.)

**Concentrating Machinery—**  
 Allis-Chalmers Co., Home Insurance Building, Chicago, Ill.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

**Condensers, Ammonia—**

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

**Condensers for Oil Refineries—**

Struthers, Wells & Co., Warren, Pa.

**Condensers, Steam—**

Alberger Condenser Co., 95 Liberty St., New York.  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
 Filer & Stowell Co., Milwaukee, Wis.  
 Benj. F. Kelley & Son, 91 Liberty St., New York.  
 John H. McGowan Co., Cincinnati, O.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Wm. B. Pollock Co., Youngstown, O.  
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Southwark Foundry & Machine Co., Philadelphia, Pa.  
 Taunton Locomotive Mfg. Co., Taunton, Mass.  
 Tudor Boiler Mfg. Co., Cincinnati, O.  
 Whitlock Coil Pipe Co., Hartford, Ct.  
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**MERCHANTS.**

Wickes Bros., Saginaw, Mich.

**Conductor Elbows, Fasteners, &c.—**

(See Elbows, Fasteners, &amp;c.)

**Conductor Pipe Hangers—**

(See Hangers, Conductor Pipe.)

**Conductor Pipe Machinery—**

Canton Foundry & Machine Co., Canton, O.

**Conductors, Pipe—**

American Sheet & Tin Plate Co., Pittsburgh, Pa.  
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
 Canton Steel Roofing Co., Canton, O.  
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.  
 Clark, Quien & Morse, Peoria, Ill.  
 Edwards Mfg. Co., Cincinnati, O.  
 Garry Iron & Steel Co., Cleveland, O.  
 National Sheet Metal Roofing Co., Jersey City, N. J.

**Conduits, Interior, Electric—**

Sprague Electric Co., 527-531 W. 34th St., New York.

**Cones and Cups—**

(See Cups and Cones.)

**Confectioners' Hatchets—**

(See Hatchets, Confectioners'.)

**Connections, Closet—**

(See Closet Connections.)

**Conservatories, Iron Framed—**

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

**Controllers, Electric—**

Case Mfg. Co., Columbus, O.  
 Electric Controller & Supply Co., Cleveland, O.  
 General Electric Co., Schenectady, N. Y.  
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Controllers, Electric, for Cranes—**

Case Mfg. Co., Columbus, O.  
Electric Controller & Supply Co., Cleveland, O.

**Converters, Bessemer—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
Pennsylvania Engineering Works, New Castle, Pa.  
Wm. B. Pollock Co., Youngstown, O.  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
Wm. Tod & Co., Youngstown, O.

**Converters, Electric—**

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Converters, Side Blow—**

**MERCHANTS**

N. Lillienberg, Beta Bldg., Philadelphia, Pa.

**Conveying Belts—**

(See Belts, Conveying.)

**Conveying Machinery—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
American Furnace & Machine Co., Pittsburgh, Pa.  
Atlas Car & Mfg. Co., Cleveland, O.  
C. O. Bartlett & Snow Co., Cleveland, O.  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Brown Hoisting Machinery Co., Inc., Cleveland, O.  
Buhl Malleable Co., Detroit, Mich.  
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.  
Case Mfg. Co., Columbus, O.  
W. J. Clark Co., Salem, O.  
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.  
Dodge Mfg. Co., Mishawaka, Ind.  
Filer & Stowell Co., Milwaukee, Wis.  
C. W. Hunt Co., West New Brighton, N. Y.  
Jeffrey Mfg. Co., Columbus, O.  
A. Leschen & Sons Rope Co., St. Louis, Mo.  
Lidderwood Mfg. Co., 96 Liberty St., N. Y.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
Macomber & Whyte Rope Mfg. Co., 19-21 So. Canal St., Chicago, Ill.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
E. E. Myers & Bro., Ashland, O.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Robins Conveying Belt Co., 17-22 Park Row, New York.  
Trenton Iron Co., Trenton, N. J.  
Tyrone Foundry & Machine Co., Tyrone, Pa.  
Van Lorn Iron Works Co., Cleveland, O.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Wolf Co., 523 N. 23d St., Philadelphia, Pa.  
Wickes Bros., Saginaw, Mich.

**MERCHANTS**

Borden & Selleck Co., 48 Lake St., Chicago, Ill.  
Fairbanks Co., 416 Broome St., New York.  
Main Belting Co., 1219 Carpenter St., Philadelphia, Pa.  
McGeorge & Sons, Cleveland, O.

**Conveying Machinery, Electric—**

Brown Hoisting Machinery Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Conveyor Belts, Concentrating Rollers for—**

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

**Conveyor Pans, Troughs—**

(See Pans, Troughs.)

**Conveyors, Canvas, Harvester and Binder—**

Whitman & Barnes Mfg. Co., Akron, O.

**Conveyors, Cable Hoist—**

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Trenton Iron Co., Trenton, N. J.

**Conveyors, Cotton and Wool—**

B. F. Sturtevant Co., Boston, Mass.

**Conveyors, Light Material—**

B. F. Sturtevant Co., Boston, Mass.

**Conveyors, Steel Screw—**

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

**Cookers and Heaters, Gas**

**Bracket—**

Ferno Co., Brooklyn, N. Y.

**Cookers, Glue—**

J. A. Taggart, Toledo, O.

**Cooking Ovens, Electric—**

United Electric Heating Co., Detroit, Mich.

**Coolers, Cellular, for Automobiles—**

Whitlock Coll Pipe Co., Hartford, Ct.

**Coolers, Water—**

L. O. Koven & Bro., 50 Cliff St., N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Cooling Towers—**

Alberger Condenser Co., 96 Liberty St., New York.  
Wm. B. Pollock Co., Youngstown, O.

Southwark Foundry & Machine Co., Philadelphia, Pa.

**Coopers' Tools—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

L. & I. J. White Co., Buffalo, N. Y.

**Coops, Poultry—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Copiers, Rotary Letter—**

Globe-Vernicke Co., Cincinnati, O.

**Coping Machines, Beam and Channel—**

Cincinnati Punch & Shear Co., Cincinnati, O.

Hilles & Jones Co., Wilmington, Del.

**Coping Saws—**

(See Saws, Coping.)

**Copper—**

Orford Copper So., 43 Exchange Pl., N. Y.  
Theo. Hiertz Metal Co., St. Louis, Mo.

**MERCHANTS**

American Metal Co., 52 Broadway, N. Y.  
Ansonia Brass & Copper Co., 99 John St., New York.

Bassett-Presley Co., Cleveland, O.

Bridgeport Brass Co., Bridgeport, Ct.

Brown-Walace Co., Boston, Mass.



John Davol & Sons 100 John St., N. Y.  
Hendricks Bros., 49 Cliff St., New York.  
Theo. Hiertz Metal Co., St. Louis, Mo.  
Merchant & Co., Inc., Philadelphia, Pa.  
Arthur T. Rutter & Co., 25 Broadway,  
New York.

J. J. Ryan & Co., 68-74 W. Monroe St.,  
Chicago, Ill.

#### **Copper Bars—**

Ansonia Brass & Copper Co., 99 John St.,  
New York.

Bridgeport Brass Co., Bridgeport, Ct.

#### **Copper Bottoms, &c.—** (See Bottoms, &c.)

#### **Copper, Bolt—**

Ansonia Brass & Copper Co., 99 John St.,  
New York.

Bridgeport Brass Co., Bridgeport, Ct.  
McKenna Bros. Brass Co., Pittsburg, Pa.

Randolph-Cloves Co., Waterbury, Ct.  
Scovill Mfg. Co., Waterbury, Ct.

#### **MERCHANTS.**

Brown-Wales Co., Boston, Mass.

Hendricks Bros., 49 Cliff St., New York.

Merchant & Co., Inc., Philadelphia, Pa.

#### **Copper, Coated Sheet Zinc**

#### **Polished**

American Nickeloid & Mfg. Co., Peru, Ill.

#### **Copper, Commutator Brush—**

Ansonia Brass & Copper Co., 99 John St.,  
New York.

#### **Copper Cornice—**

Ansonia Brass & Copper Co., 99 John St.,  
New York.

Randolph-Cloves Co., Waterbury, Ct.

#### **Coppering—**

E. Phillips & Sons, So. Hanover, Mass.

#### **Copper Pails—**

(See Ware, Copper.)

#### **Copper, Perforated Sheet—**

Harrington & King Perforating Co., 224  
N. Union St., Chicago, Ill.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

#### **Copper, Phosphorus—**

Crescent Phosphorized Metal Co., Phila-  
delphia, Pa.

#### **Copper, Roll and Sheet—**

Ansonia Brass & Copper Co., 99 John St.,  
New York.

Bridgeport Brass Co., Bridgeport, Ct.

Hendricks Bros., 49 Cliff St., New York.  
McKenna Bros. Brass Co., Pittsburg, Pa.

Randolph-Cloves Co., Waterbury, Ct.  
Scovill Mfg. Co., Waterbury, Ct.

Hugh L. Thomson, Waterbury, Ct.

#### **Coppersmiths—**

E. B. Badger & Sons Co., Boston, Mass.

National Pipe Bending Co., New Haven,  
Ct.

Wm. B. Scaife & Sons Co., Pittsburg,  
Pa.

#### **Coppers, Soldering—**

Ansonia Brass & Copper Co., 99 John St.,  
New York.

E. W. Bliss Co., Brooklyn, N. Y.

Bridgeport Brass Co., Bridgeport, Ct.

Covert Mfg. Co., W. Troy, N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Charles Mundt & Sons, 441-447 Pearl St.,  
New York.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Stover Mfg. Co., Freeport, Ill.

Union Hardware Co., Torrington, Ct.

White Mfg. Co., 33 Michigan Ave., Chi-  
cago, Ill.

#### **Coppers, Soldering, Elec- tric—**

United Electric Heating Co., Detroit,  
Mich.

#### **Coppers, Soldering Sets—**

Root Bros. Co., Plymouth, O.

#### **Copper Wire, Bare and**

#### **Waterproof—**

(See Wires, Electrical.)

#### **Copying Presses—**

(See Presses, Copying.)

#### **Cord Adjusters, Electric—**

(See Electric Light Fittings.)

#### **Cordage—**

American Mfg. Co., 63 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis,  
Mo.

A. Leschen & Sons Rope Co., St. Louis,  
Mo.

Macomber & Whyte Rope Co., 19-21 S.

Canal St., Chicago, Ill.

Waterbury & Co., 69 South St., N. Y.

#### **Cord, Bicycle Lacing—**

Emerson P. Turner Mfg. Co., Norwich, Ct.

#### **Cord, Electric—**

Samson Cordage Works, Boston, Mass.

United Electric Heating Co., Detroit,  
Mich.

#### **Cord Grips—**

(See Grips, Cord and Line.)

#### **Cord, Picture—**

Andrew B. Hendryx Co., New Haven, Ct.

Parker Wire Goods Co., Worcester, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

Western Wire Goods Co., Buffalo, N. Y.

#### **Cord, Sash—**

Broderick & Bascom Rope Co., St. Louis,  
Mo.

Geo. B. Carpenter & Co., 15 Fifth Ave.,  
Chicago, Ill.

Estes & Sons, Fall River, Mass.

John H. Graham & Co., 113 Chambers St.,  
New York.

A. Leschen & Sons Rope Co., St. Louis,  
Mo.

Macomber & Whyte Rope Co., 19-21 S.

Canal St., Chicago, Ill.

Phosphor Bronze Smelting Co., 2200 Wash-  
ington Ave., Philadelphia, Pa.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Wright Wire Co., Worcester, Mass.

#### **Cord, Shade and Ventila- tor—**

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

#### **Cords, Hammock—**

(See Ropes, Hammock and Hitching.)

#### **Cord, Signal—**

Broderick & Bascom Rope Co., St. Louis,  
Mo.

A. Leschen & Sons Rope Co., St. Louis,  
Mo.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

#### **Cord, Sliding Door Damper—**

Perfect Sliding Door Co., Bridgeport, Ct.

#### **Cord Wire, Picture—**

Andrew B. Hendryx Co., New Haven, Ct.

A. Leschen & Sons Rope Co., St. Louis,  
Mo.

**Macomber & Whyte Rope Co.**, 19-21 S. Canal St., Chicago, Ill.  
**Wire Goods Co.**, Worcester, Mass.

**Cord, Wire, Sash—**  
**American Steel & Wire Co., The Rookery,** Chicago, Ill.

**A. Leschen & Sons Rope Co.**, St. Louis, Mo.

**Phosphor Bronze Smelting Co.**, 2200 Washington Ave., Philadelphia, Pa.

**Pullman Mfg. Co.**, Rochester, N. Y.

**Williamsport Wire Rope Co.**, Williamsport, Pa.

**Core Boxes, Cast Iron—**  
**Brown & Sharpe Mfg. Co.**, Providence, R. I.

**Core Chaplets—**  
**J. W. Paxson Co.**, 1021 N. Delaware Ave., Philadelphia, Pa.

**Core Making Compound—**  
**New Era Mfg. Co.**, Kalamazoo, Mich.  
**S. Obermayer Co.**, Cincinnati, O.  
**J. W. Paxson Co.**, 1021 N. Delaware Ave., Philadelphia, Pa.

**Smooth-On Mfg. Co.**, Jersey City, N. J.

**Core Oil—**  
 (See Oil, Core.)

**Corers, Apple—**  
**Parker Wire Goods Co.**, Worcester, Mass.  
**Rollman Mfg. Co.**, Mt. Joy, Pa.

**Cork Cutters, Presses—**  
 (See Cutters, Presses, &c.)

**Corn Cribs, Portable—**  
 (See Cribs, Corn, Portable.)

**Corn Cutters, Dryers, Graters, &c.—**  
 (See Cutters, Dryers, Graters, &c.)

**Corner Irons, Plates—**  
 (See Irons, Plates.)

**Corners, Box—**  
**Cary Mfg. Co.**, 19-21 Roosevelt St., N. Y.

**Corners, Box and Sample Case—**

**R. C. Jenkinson & Co.**, Newark, N. J.

**Corners, Trunk—**  
**R. C. Jenkinson & Co.**, Newark, N. J.

**J. H. Sessions & Son**, Bristol, Ct.

**Corners, Window Screen—**  
**Columbia Grey Iron Co.**, Columbia, Pa.

**Cornice, Copper—**  
 (See Copper, Cornice.)

**Cornice, &c., Galvanized Iron—**

**Berger Mfg. Co.**, Canton, O.

**Canton Steel Roofing Co.**, Canton, O.

**Chattanooga Roofing & Foundry Co.**, Chattanooga, Tenn.

**Clason Architectural Metal Co.**, Providence, R. I.

**G. Drouve Co.**, Bridgeport, Ct.

**Garry Iron & Steel Co.**, Cleveland, O.

**McCullough Iron Co.**, Wilmington, Del.

**Moseley Iron Bridge & Roof Co.**, 39 Cortlandt St., New York.

**National Sheet Metal Roofing Co.**, Jersey City, N. J.

MERCHANTS.

**Bassett-Presley Co.**, Cleveland, O.

**Cornice Machinery—**  
**George A. Ohl & Co.**, Newark, N. J.

**Corrugated Arches—**  
 (See Arches, Curved, Corrugated.)

**Corrugated Iron—**  
**American Sheet & Tin Plate Co.**, Pittsburgh, Pa.

**Boston Bridge Works**, Boston, Mass.

**Canton Steel Roofing Co.**, Canton, O.

**Goff, Horner & Co. Ltd.**, Pittsburgh, Pa.

**McCullough Iron Co.**, Wilmington, Del.

**Moseley Iron Bridge & Roof Co.**, 39 Cortlandt St., New York.

**Republic Iron & Steel Co.**, Chicago, Ill.

**Wm. B. Seafie & Sons**, Pittsburgh, Pa.

**Alan Wood Iron & Steel Co.**, 519 Arch St., Philadelphia, Pa.

**Youngstown Iron Sheet & Tube Co.**, Youngstown, O.

**Youngstown Iron & Steel Roofing Co.**, Youngstown, O.

**Zug & Co., Ltd.**, Pittsburgh, Pa.

MERCHANTS.

**Bassett-Presley Co.**, Cleveland, O.

**Brown-Wales Co.**, Boston, Mass.

**Bourne-Fuller Co.**, Cleveland, O.

**C. B. Houston & Co.**, Girard Bldg., Philadelphia, Pa.

**Merchant & Co., Inc.**, Philadelphia, Pa.

**Pearson & Co.**, 25 Broadway, New York.

**Joseph T. Ryerson & Son**, 18-22 Milwaukee Ave., Chicago, Ill.

**Wm. H. Wallace & Co.**, 66 Broadway, New York.

**Corrugated Nails—**  
 (See Nails, Corrugated.)

**Corrugating Machinery, Sheet—**  
 (See Sheet Corrugating Machinery.)

**Corset Steel—**  
 (See Steel, Corset.)

**Corundum—**  
**American Emery Wheel Works**, Providence, R. I.

**Chicago Wheel & Mfg. Co.**, 39-45 W. Randolph St., Chicago, Ill.

**Norton Emery Wheel Co.**, Worcester, Mass.

**Pike Mfg. Co.**, Pike, N. H.

**Vitrified Wheel Co.**, Westfield, Mass.

**Corundum Bricks—**  
**American Emery Wheel Works**, Providence, R. I.

**Cotter Drills—**  
 (See Drills, Cotter.)

**Cotter Pin Machinery—**  
**Blake & Johnson**, Waterbury, Ct.

**F. B. Shuster Co.**, New Haven, Ct.

**Cotters and Keys, Spring—**  
**M. S. Brooks & Son**, Chester, Ct.

**Cincinnati Screw & Tap Co.**, Cincinnati.

**Climax Tag Co.**, Dayton, O.

**Cobb & Drew**, Plymouth, Mass.

**Hindley Mfg. Co.**, Valley Falls, R. I.

**E. Jenckes Mfg. Co.**, Pawtucket, R. I.

**Standard Tool Co.**, Cleveland, O.

**Whitman & Barnes Mfg. Co.**, Akron, O.

**Wire Goods Co.**, Worcester, Mass.

**Cotter Wire—**  
 (See Wire, Cotter.)

**Cotton Bale Snips—**  
 (See Snips, Cotton Bale.)

**Cotton Dryers—**  
 (See Dryers, Cloth and Cotton.)

**Cotton Hooks, Hose, Rope, &c.—**  
 (See Hooks, Hose, Rope, &c.)

**Cotton Planters—**  
 (See Planters, Cotton.)

**Counters, Rolling—**  
**Cheeswick Mfg. Co.**, Cheeswick, Pa.

**Counter Borers, Scales, Supports—**

(See Borers, Scales, Supports.)

**Countershafts—**Blake & Johnson, Waterbury, Ct.  
Brown & Sharpe Mfg. Co., Providence, R. I.Buffalo Forge Co., Buffalo, N. Y.  
Balders Iron Foundry, Providence, R. I.Case Mfg. Co., Columbus, O.  
Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Geo. V. Cresson Co., 18th St. &amp; Allegheny Ave., Philadelphia, Pa.

Cutler, Wood &amp; Stevens Co., Boston, Mass.

Deming Co., Salem, O.  
Diamond Machine Co., Providence, R. I.Dodge Mfg. Co., Mishawaka, Ind.  
Garvin Machine Co., Spring & Varick Sts., New York.Humphreys Mfg. Co., Mansfield, O.  
Kemp Smith Mfg. Co., Milwaukee, Wis.

Minneapolis Steel &amp; Machinery Co., Minneapolis, Minn.

Mossberg Wrench Co., Central Falls, R. I.  
F. E. Myers & Bro., Ashland, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
Standard Machinery Co., Providence, R. I.Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.R. F. Sturtevant Co., Boston, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

Wilmarth &amp; Morman Co., Grand Rapids, Mich.

Zucker &amp; Levett &amp; Loeb Co., 526-530 W. 25th St., New York.

**MERCHANTS**Brown-Wales Co., Boston, Mass.  
Bill, Clarke & Co., Boston, Mass.**Countershafts, Friction—**  
Fairbanks Co., 416 Broome St., New York.

Garvin Machine Co., Spring and Varick Sts., New York.

Wilmarth &amp; Morman Co., Grand Rapids, Mich.

**Countersink Bits—**

(See Bits, Countersink.)

**Countersink Head Nails—**

(See Nails, Countersink Head.)

**Countersink Radial Machines—**Detrick & Harvey Machine Co., Baltimore.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.**Countersinks—**

Atlantic Machine Screw Co., Boston, Mass.

Billings & Spencer Co., Hartford, Ct.  
Braunsdorf-Mueller Co., Elizabeth, N. J.Charles Buck, Millbury, Mass.  
Buck Bros., Millbury, Mass.Butterfield & Co., Derby Line, Vt.  
Detroit Twist Drill Co., Detroit, Mich.Forest City Bit & Tool Co., Rockford, Ill.  
J. B. Hunter & Co., Boston, Mass.H. H. Mayhew Co., Shelburne Falls, Mass.  
Morse Twist Drill & Mach. Co., New Bedford, Mass.Pratt & Whitney Co., Hartford, Ct.  
E. F. Reed Co., Greenfield, Mass.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Otis A. Smith, Rockfall, Ct.  
Standard Tool Co., Cleveland, O.Stanley Rule & Level Co., New Britain, Ct.  
Tuck Mfg. Co., Brockton, Mass.Wells Bros. & Co., Greenfield, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.**Counters, Revolution—**  
American Steam Gauge & Valve Mfg. Co., Boston, Mass.Ashton Valve Co., Boston, Mass.  
Crosby Steam Gauge & Valve Co., Boston, Mass.W. N. Durant Co., Milwaukee, Wis.  
R. A. Hart, Battle Creek, Mich.Harvey Hubbell, Bridgeport, Ct.  
Pratt & Whitney Co., Hartford, Ct.Standard Machinery Co., Providence, R. I.  
Tabor Mfg. Co., Elizabeth, N. J.

Veeder Mfg. Co., Hartford, Ct.

**Counters, Store—**

J. D. Warren Mfg. Co., Chicago, Ill.

**Counters, Wrapping—**

J. D. Warren Mfg. Co., Chicago, Ill.

**Counting Machines—**

W. N. Durant Co., Milwaukee, Wis.

Grant Mfg. &amp; Machine Co., Bridgeport, Ct.

Keuffel &amp; Esser Co., 127 Fulton St., N. Y.

Pratt &amp; Whitney Co., Hartford, Ct.

Veeder Mfg. Co., Hartford, Ct.

**Couplers, Steel—**

Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.

**Coupling Bolts—**

(See Bolts, Special.)

**Coupling Pins and Links—**

(See Links and Pins, Car Coupling.)

**Couplings, Bell Cord—**

American Railway Supply Co., 24 Park Place, New York.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Stowell Mfg. &amp; Foundry Co., South Milwaukee, Wis.

**Couplings, Belt—**

Atlantic Machine Screw Co., Boston, Mass.

Samson Cordage Works, Boston, Mass.

**Couplings, Coal Car—**

James McKay &amp; Co., Pittsburgh, Pa.

**Couplings, Compression Shaft—**

Buhl Malleable Co., Detroit, Mich.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.

Columbia Bridge Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Minneapolis Steel &amp; Machinery Co., Minneapolis, Minn.

Poole Engineering &amp; Machine Co., Baltimore, Md.

George B. Sennett Co., Youngstown, O.

Vandegrift Coupling Co., Evansville, Ind.

**Couplings, Flange Shaft—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Baker Bros., Toledo, O.

Borden &amp; Selleck Co., 48 Lake St., Chicago, Ill.

Boston Gear Works, Boston, Mass.

Case Mfg. Co., Columbus, O.

H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.  
Buhl Malleable Co., Detroit, Mich.  
Columbia Bridge Co., Pittsburgh, Pa.  
Geo. V. Cresson Co., 18th St. & Alle-  
gheny Ave., Philadelphia, Pa.  
Cumberland Steel Co., Cumberland, Md.  
W. P. Davis Machine Co., Rochester, N. Y.  
Dodge Mfg. Co., Mishawaka, Ind.  
Fairbanks Co., 416 Broome St., New York.  
Filer & Stowell Co., Milwaukee, Wis.  
Hess, Snyder & Co., Massillon, O.  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Jones & Laughlin Steel Co., Pittsburgh,  
Pa.

Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

Nazareth Foundry & Machine Co., Naza-  
reth, Pa.

Poole Engineering & Machine Co., Balti-  
more, Md.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Upson Nut Co., Cleveland, O.

Vandegrift Coupling Co., Evansville, Ind.

Walworth Mfg. Co., Boston, Mass.

Wolf & Co., 523 N. 23d St., Philadelphia,  
Pa.

**Couplings, Flexible Shaft—**  
Case Mfg. Co., Columbus, O.

Thos. H. Dallett & Co., York St. &  
Sedgley Ave., Philadelphia, Pa.

**Couplings, Friction Clutch—**  
American Tool & Machine Co., Boston,  
Mass.

E. W. Bliss Co., Brooklyn, N. Y.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. & Alle-  
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven Ct.

Filer & Stowell Co., Milwaukee, Wis.

Hess, Snyder & Co., Massillon, O.

Jones & Laughlin Steel Co., Pittsburgh,  
Pa.

Lane Mfg. Co., Montpelier, Vt.

Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

New Haven Mfg. Co., New Haven, Ct.

Poole Engineering & Machine Co., Balti-  
more, Md.

Wolf & Co., 523 N. 23d St., Philadelphia,  
Pa.

**Couplings, Hose—**  
(See Hose Attachments.)

**Couplings, Joint—**  
Boston Gear Works, Boston, Mass.

Scould & Eberhardt, Newark, N. J.

**Couplings, Mine, Car—**  
Standard Chain Co., Pittsburgh, Pa.

**Couplings, Pipe—**  
Standard Engineering Co., Ellwood City,  
Pa.

**Couplings, Pump Rod—**  
Barnes Mfg. Co., Mansfield, O.

Crane Co., Chicago, Ill.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

F. E. Myers & Bro., Ashland, O.

**Couplings, Railroad—**  
Cleveland City Forge & Iron Co., Cleve-  
land, O.

**Couplings, Universal Joint—**  
H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St. & Alle-  
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Filer & Stowell Co., Milwaukee, Wis.

Jones & Laughlin Steel Co., Pittsburgh,  
Pa.

Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

Stow Flexible Shaft Co., 26th and Callow-  
hill Sts., Philadelphia, Pa.

**Couplings, Wire Rope—**  
A. Leschen & Sons Rope Co., St. Louis,  
Mo.

**Coverings, Asbestos Pipe  
and Boiler—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.

**Covers and Caps, Crucible—**  
Joseph Dixon Crucible Co., Jersey City,  
N. J.

McCullough-Dalzell Crucible Co., Pitts-  
burgh, Pa.

**Covers, Barrel—**  
Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-236 Arch St.,  
Philadelphia, Pa.

Fred. J. Meyers Mfg. Co., Hamilton, O.

Wright Wire Co., Worcester, Mass.

**Covers, Binder—**  
Whitman & Barnes Mfg. Co., Akron, O.

**Covers, Catch Basin—**  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

Nazareth Foundry & Machine Co., Naza-  
reth, Pa.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. & Foundry Co., So. Mil-  
waukee, Wis.

B. F. Sturtevant Co., Boston, Mass.

Vulcan Iron Works, 59 Milwaukee Ave.,  
Chicago, Ill.

**Covers, Cistern—**  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Stover Mfg. Co., Freeport, Ill.

**Covers, Dish—**  
(See Household Articles, Wire.)

**Covers, Horse, Truck,  
Wagon, &c.—**

Geo. B. Carpenter & Co., 1-5 Fifth Ave.,  
Chicago, Ill.

**Covers, Loose Leaf Cata-  
logue—**

Tengwall File & Ledger Co., Ravenswood  
Sta., Chicago, Ill.

**Covers, Pot—**  
Sidney Shepard & Co., Buffalo, N. Y.

**Covers, Stack and Water  
Proof—**

Geo. B. Carpenter & Co., 1-5 Fifth Ave.,  
Chicago, Ill.

**Covers, Trench—**  
B. F. Sturtevant Co., Boston, Mass.

**Cow Bells—**  
(See Bells, Cow.)

**Crabs, Pole—**  
Walter W. Woodruff & Sons Co., Mount  
Carmel, Ct.

**Counter Borers, Scales, Supports—**

(See Borers, Scales, Supports.)

**Countershafts—**Blake & Johnson, Waterbury, Ct.  
Brown & Sharpe Mfg. Co., Providence, R. I.Buffalo Forge Co., Buffalo, N. Y.  
Builders Iron Foundry, Providence, R. I.Case Mfg. Co., Columbus, O.  
Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.  
Cutler, Wood & Stevens Co., Boston, Mass.Deming Co., Salem, O.  
Diamond Machine Co., Providence, R. I.Dodge Mfg. Co., Mishawaka, Ind.  
Garvin Machine Co., Spring & Varick Sts., New York.Humphreys Mfg. Co., Mansfield, O.  
Kemp Smith Mfg. Co., Milwaukee, Wis.Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
Mossberg Wrench Co., Central Falls, R. I.F. E. Myers & Bro., Ashland, O.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.Pratt & Whitney Co., Hartford, Ct.  
Standard Machinery Co., Providence, R. I.Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.B. F. Sturtevant Co., Boston, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

Wilmarth &amp; Morman Co., Grand Rapids, Mich.

Zucker &amp; Levett &amp; Loeb Co., 526-530 W. 25th St., New York.

**MERCHANTS.**Brown-Wales Co., Boston, Mass.  
Hill, Clarke & Co., Boston, Mass.**Countershafts, Friction—**  
Fairbanks Co., 416 Broome St., New York.  
Garvin Machine Co., Spring and Varick Sts., New York.

Wilmarth &amp; Morman Co., Grand Rapids, Mich.

**Countersink Bits—**

(See Bits, Countersink.)

**Countersink Head Nails—**

(See Nails, Countersink Head.)

**Countersink Radial Machines—**Detrick & Harvey Machine Co., Baltimore.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.**Countersinks—**

Atlantic Machine Screw Co., Boston, Mass.

Billings & Spencer Co., Hartford, Ct.  
Brannsdorff-Mueller Co., Elizabeth, N. J.Charles Ruck, Millbury, Mass.  
Buck Bros., Millbury, Mass.Butterfield & Co., Derby Line, Vt.  
Detroit Twist Drill Co., Detroit, Mich.Forest City Bit & Tool Co., Rockford, Ill.  
J. B. Hunter & Co., Boston, Mass.H. H. Mayhew Co., Shelburne Falls, Mass.  
Morse Twist Drill & Mach. Co., New Bedford, Mass.Pratt & Whitney Co., Hartford, Ct.  
E. F. Reed Co., Greenfield, Mass.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Otis A. Smith, Rockfall, Ct.  
Standard Tool Co., Cleveland, O.Stanley Rule & Level Co., New Britain, Ct.  
Tuck Mfg. Co., Brockton, Mass.Wells Bros. & Co., Greenfield, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.**Counters, Revolution—**  
American Steam Gauge & Valve Mfg. Co., Boston, Mass.Ashton Valve Co., Boston, Mass.  
Crosby Steam Gauge & Valve Co., Boston, Mass.W. N. Durant Co., Milwaukee, Wis.  
R. A. Hart, Battle Creek, Mich.Harvey Hubbell, Bridgeport, Ct.  
Pratt & Whitney Co., Hartford, Ct.Standard Machinery Co., Providence, R. I.  
Taber Mfg. Co., Elizabeth, N. J.

Veeder Mfg. Co., Hartford, Ct.

**Counters, Store—**  
J. D. Warren Mfg. Co., Chicago, Ill.**Counters, Wrapping—**  
J. D. Warren Mfg. Co., Chicago, Ill.**Counting Machines—**  
W. N. Durant Co., Milwaukee, Wis.

Grant Mfg. &amp; Machine Co., Bridgeport, Ct.

Keuffel &amp; Esser Co., 127 Fulton St., N. Y.

Pratt & Whitney Co., Hartford, Ct.  
Veeder Mfg. Co., Hartford, Ct.**Couplers, Steel—**  
Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.**Coupling Bolts—**  
(See Bolts, Special.)**Coupling Pins and Links—**  
(See Links and Pins, Car Coupling.)**Couplings, Bell Cord—**  
American Railway Supply Co., 24 Park Place, New York.Samson Cordage Works, Boston, Mass.  
Silver Lake Co., Boston, Mass.

Stowell Mfg. &amp; Foundry Co., South Milwaukee, Wis.

**Couplings, Belt—**  
Atlantic Machine Screw Co., Boston, Mass.

Samson Cordage Works, Boston, Mass.

**Couplings, Coal Car—**  
James McKay & Co., Pittsburgh, Pa.**Couplings, Compression Shaft—**  
Buhl Malleable Co., Detroit, Mich.Case Mfg. Co., Columbus, O.  
Charter Gas Engine Co., Sterling, Ill.Columbia Bridge Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.

Minneapolis Steel &amp; Machinery Co., Minneapolis, Minn.

Poole Engineering &amp; Machine Co., Baltimore, Md.

George B. Sennett Co., Youngstown, O.  
Vandegrift Coupling Co., Evansville, Ind.**Couplings, Flange Shaft—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.Baker Bros., Toledo, O.  
Borden & Selleck Co., 48 Lake St., Chicago, Ill.Boston Gear Works, Boston, Mass.  
Case Mfg. Co., Columbus, O.

Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey,  
Ill.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
Browning Engineering Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
Wickes Bros., Saginaw, Mich.  
Mason G. Worth & Co., Real Estate  
Trust Bldg., Philadelphia, Pa.

**Cranes, Hand Traveling—**

Alliance Machine Co., Alliance, O.  
Bethlehem Foundry & Machine Co.,  
South Bethlehem, Pa.  
Boston Bridge Works, Boston, Mass.  
Brown Hoisting Machinery Co., Inc.,  
Cleveland, O.  
Byram & Co., Inc., Detroit, Mich.  
Case Mfg. Co., Columbus, O.  
Chisholm & Moore Mfg. Co., Cleveland, O.  
Cleveland Crane & Car Co., Wickliffe, O.  
Garry Iron & Steel Co., Cleveland, O.  
Morgan Construction Co., Worcester,  
Mass.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
Pawling & Harnischfeger, Milwaukee,  
Wis.  
Wm. Sellers & Co. (Inc.), Philadelphia  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.  
J. G. Speidel Reading, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
McGeorge & Sons, Cleveland, O.  
Mason G. Worth & Co., Real Estate  
Trust Bldg., Philadelphia, Pa.

**Cranes, Hydraulic—**

Alliance Machine Co., Alliance, O.  
Garry Iron & Steel Co., Cleveland, O.  
Morgan Construction Co., Worcester,  
Mass.  
S. Obermayer Co., Cincinnati, O.  
Philadelphia Roll & Machine Co., 23d St.  
& Washington Ave., Philadelphia, Pa.  
United Engineering & Foundry Co., Pitts-  
burgh, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey,  
Ill.  
R. D. Wood & Co., 400 Chestnut St.,  
Philadelphia, Pa.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
McGeorge & Sons, Cleveland, O.  
Power Specialty Co., 126 Liberty St.,  
New York.  
Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.

**Cranes, Hydraulic Ingot and  
Ladle—**

Case Mfg. Co., Columbus, O.  
Garry Iron & Steel Co., Cleveland, O.  
United Engineering & Foundry Co., Pitts-  
burgh, Pa.

**Cranes, Hydraulic Jib—**

Alliance Machine Co., Alliance, O.  
Fairbanks Co., 416 Broome St., New York.

Garry Iron & Steel Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey,  
Ill.

**Cranes, Jib—**

Alliance Machine Co., Alliance, O.  
Boston Bridge Works, Boston, Mass.  
Alfred Box & Co., Front & Poplar Sts.,  
Philadelphia, Pa.  
Brown Hoisting Machinery Co., Cleve-  
land, O.  
Byram & Co., Inc., Detroit, Mich.  
Case Mfg. Co., Columbus, O.  
Chisholm & Moore Mfg. Co., Cleveland, O.  
Cleveland Crane & Car Co., Wickliffe, O.  
Dobbie Foundry & Machine Co., Niagara  
Falls, N. Y.  
Farrel Foundry & Mach. Co., Ansonia, Ct.  
Garry Iron & Steel Co., Cleveland, O.  
Industrial Works, Bay City, Mich.  
Minneapolis Steel & Machinery Co.,  
Minneapolis, Minn.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
S. Obermayer Co., Cincinnati, O.  
Pawling & Harnischfeger, Milwaukee,  
Wis.  
Craig Ridgway & Son Co., Coatesville, Pa.  
Gitter-Conley Mfg. Co., Pittsburgh, Pa.  
Wm. Sellers & Co. (Inc.), Philadelphia.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.  
J. G. Speidel Reading, Pa.  
Whiting Foundry Equipment Co., Harvey,  
Ill.  
R. D. Wood & Co., 400 Chestnut St.,  
Philadelphia, Pa.

**MERCHANTS.**

Browning Engineering Co., Cleveland, O.  
Carlin Machinery & Supply Co., Alle-  
gheny, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Manning, Maxwell & Moore, 85 Liberty  
St., New York.  
J. W. Paxson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.  
Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.  
Wickes Bros., Saginaw, Mich.  
Mason G. Worth & Co., Real Estate  
Trust Bldg., Philadelphia, Pa.

**Cranes, Ladle—**

Pawling & Harnischfeger, Milwaukee,  
Wis.

**Cranes, Locomotive—**

Brown Hoisting Machinery Co., Cleve-  
land, O.  
Case Mfg. Co., Columbus, O.  
Garry Iron & Steel Co., Cleveland, O.  
Industrial Works, Bay City, Mich.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
Pawling & Harnischfeger, Milwaukee,  
Wis.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.

**MERCHANTS.**

Browning Engineering Co., Cleveland, O.

**Crackers, Nut—**

Acme Shear Co., Bridgeport, Ct.  
American Cutlery Co., Chicago, Ill.  
Arcade Mfg. Co., Freeport, Ill.  
Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.  
Federal Mfg. Co., Cleveland, O.  
International Silver Co., 9-13 Maiden Lane,  
New York

Landers, Frary & Clark, New Britain, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
A. C. Williams, Ravenna, O.

**Cradles, Grain—**

Iowa Farming Tool Co., Fort Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson,  
Mich.

**Crane Chain—**

(See Chain, Crane, Cable, &c.)

**Cranes, Charging—**

Alliance Machine Co., Alliance, O.  
Case Mfg. Co., Columbus, O.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**

McGeorge & Sons, Cleveland, O.

**Cranes, Dock—**

Brown Hoisting Machinery Co., Cleve-  
land, O.  
Garry Iron & Steel Co., Cleveland, O.  
Industrial Works, Bay City, Mich.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Shaw Electric Crane Co., 85-89 Liberty St.,  
New York.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey,  
Ill.

**Cranes, Electric—**

Alliance Machine Co., Alliance, O.  
Alfred Box & Co., Front & Poplar Sts.,  
Philadelphia, Pa.  
Brown Hoisting Machinery Co., Inc.,  
Cleveland, O.  
Case Mfg. Co., Columbus, O.  
Chisholm & Moore Mfg. Co., Cleveland, O.  
Cleveland Crane & Car Co., Wickliffe, O.  
Garry Iron & Steel Co., Cleveland, O.  
Edw. Harrington, Son & Co., 1508 Penn-  
sylvania Ave., Philadelphia, Pa.  
Manning, Maxwell & Moore, 85 Liberty  
St., New York.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
S. Obermayer Co., Cincinnati, O.  
Pawling & Harnischfeger, Milwaukee, Wis.  
Wm. Sellers & Co. (Inc.), Philadelphia,  
Pa.  
Shaw Electric Crane Co., Muskegon,  
Mich.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey,  
Ill.

**MERCHANTS.**

Browning Engineering Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
McGeorge & Sons, Cleveland, O.  
Joseph T. Ryerson & Son, 18-22 Milwaukee  
Ave., Chicago, Ill.

**Cranes, Electric Bridge—**  
Cleveland Crane & Car Co., Wickliffe, O.  
Garry Iron & Steel Co., Cleveland, O.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Cranes, Electric Revolving—**  
Garry Iron & Steel Co., Cleveland, O.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Cranes for Riveters—**

Garry Iron & Steel Co., Cleveland, O.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.

**MERCHANTS.**

Joseph T. Ryerson & Son, 18-22 Milwaukee  
Ave., Chicago, Ill.

**Cranes, Gantry—**

Alliance Machine Co., Alliance, O.  
Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.  
Boston Bridge Works, Boston, Mass.  
Brown Hoisting Machinery Co., Inc.,  
Cleveland, O.  
Case Mfg. Co., Columbus, O.  
Garry Iron & Steel Co., Cleveland, O.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey,  
Ill.

**Cranes, Hand Power—**

Alliance Machine Co., Alliance, O.  
Bethlehem Foundry & Machine Co., South  
Bethlehem, Pa.  
Boston Bridge Works, Boston, Mass.  
Alfred Box & Co., Front & Poplar Sts.,  
Philadelphia, Pa.  
Brown Hoisting Machinery Co., Inc.,  
Cleveland, O.  
Byram & Co., Detroit, Mich.  
Case Mfg. Co., Columbus, O.  
Chisholm & Moore Mfg. Co., Cleveland, O.  
Cleveland Crane & Car Co., Wickliffe, O.  
Dobbie Foundry & Machine Co., Niagara  
Falls, N. Y.  
Franklin Portable Crane & Hoist Co.,  
Franklin, Pa.  
Garry Iron & Steel Co., Cleveland, O.  
Minneapolis Steel & Machinery Co.,  
Minneapolis, Minn.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Northern Engineering Works, Detroit,  
Mich.  
S. Obermayer Co., Cincinnati, O.  
Shaw Electric Crane Co., 85-89 Liberty  
St., New York.  
J. G. Speidel, Reading, Pa.  
Turner, Vaughn & Taylor Co., Cuyahoga  
Falls, O.  
Van Dorn Iron Works Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey, Ill.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
Browning Engineering Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
Wickes Bros., Saginaw, Mich.  
Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Cranes, Hand Traveling—**

Alliance Machine Co., Alliance, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Boston Bridge Works, Boston, Mass.  
Brown Hoisting Machinery Co., Inc., Cleveland, O.  
Byram & Co., Inc., Detroit, Mich.  
Case Mfg. Co., Columbus, O.  
Cushholm & Moore Mfg. Co., Cleveland, O.  
Cleveland Crane & Car Co., Wickliffe, O.  
Garry Iron & Steel Co., Cleveland, O.  
Morgan Construction Co., Worcester, Mass.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Wm. Sellers & Co. (Inc.), Philadelphia.  
Shaw Electric Crane Co., 85-89 Liberty St., New York.

J. G. Speidel, Reading, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
McGeorge & Sons, Cleveland, O.  
Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Cranes, Hydraulic—**

Alliance Machine Co., Alliance, O.  
Garry Iron & Steel Co., Cleveland, O.  
Morgan Construction Co., Worcester, Mass.  
S. Obermayer Co., Cincinnati, O.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
United Engineering & Foundry Co., Pittsburgh, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey, Ill.  
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
McGeorge & Sons, Cleveland, O.  
Power Specialty Co., 126 Liberty St., New York.  
Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

**Cranes, Hydraulic Ingot and Ladle—**

Case Mfg. Co., Columbus, O.  
Garry Iron & Steel Co., Cleveland, O.  
United Engineering & Foundry Co., Pittsburgh, Pa.

**Cranes, Hydraulic Jib—**

Alliance Machine Co., Alliance, O.  
Fairbanks Co., 416 Broome St., New York.

Garry Iron & Steel Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey, Ill.

**Cranes, Jib—**

Alliance Machine Co., Alliance, O.  
Boston Bridge Works, Boston, Mass.  
Alfred Box & Co., Front & Poplar Sta., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Byram & Co., Inc., Detroit, Mich.  
Case Mfg. Co., Columbus, O.

Cushholm & Moore Mfg. Co., Cleveland, O.  
Cleveland Crane & Car Co., Wickliffe, O.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Farrel Foundry & Mach. Co., Ansonia, Ct.  
Garry Iron & Steel Co., Cleveland, O.

Industrial Works, Bay City, Mich.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Pawling & Harnischfeger, Milwaukee, Wis.

Craig Ridgway & Son Co., Coatesville, Pa.  
Kitter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.  
Shaw Electric Crane Co., 85-89 Liberty St., New York.

J. G. Speidel, Reading, Pa.  
Whiting Foundry Equipment Co., Harvey, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**MERCHANTS.**

Browning Engineering Co., Cleveland, O.  
Carlin Machinery & Supply Co., Allegheny, Pa.

Fairbanks Co., 416 Broome St., New York.  
Manning, Maxwell & Moore, 85 Liberty St., New York.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.  
Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Cranes, Ladle—**

Pawling & Harnischfeger, Milwaukee, Wis.

**Cranes, Locomotive—**

Brown Hoisting Machinery Co., Cleveland, O.

Case Mfg. Co., Columbus, O.  
Garry Iron & Steel Co., Cleveland, O.

Industrial Works, Bay City, Mich.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Shaw Electric Crane Co., 85-89 Liberty St., New York.

**MERCHANTS.**

Browning Engineering Co., Cleveland, O.



**Cranes, Locomotive Water-**  
Sheffield Car Co., Three Rivers, Mich.

**Cranes, Pillar-**  
Industrial Works, Bay City, Mich.

**Cranes, Pneumatic-**  
Case Mfg. Co., Columbus, O.  
Chisholm & Moore Mfg. Co., Cleveland, O.  
Garry Iron & Steel Co., Cleveland, O.  
Northern Engineering Works, Detroit, Mich.

Pedrick & Ayer Co., 87 Liberty St., N. Y.  
MERCHANTS.

Fairbanks Co., 416 Broome St., New York.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Cranes, Pneumatic Revolving-**

Garry Iron & Steel Co., Cleveland, O.

**Cranes, Portable Hand Power-**

Franklin Portable Crane & Hoist Co., Franklin, Pa.

Garry Iron & Steel Co., Cleveland, O.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Cranes, Railroad-**  
Industrial Works, Bay City, Mich.

**Cranes, Self Supporting Jib-**

Cleveland Crane & Car Co., Wickliffe, O.  
Garry Iron & Steel Co., Cleveland, O.

**Cranes, Steam-Hydraulic-**  
Craig Ridgway & Son Co., Coatesville, Pa.

Garry Iron & Steel Co., Cleveland, O.

**Crane Stops, Automatic Electric-**  
Electric Controller & Supply Co., Cleveland, O.

**Cranes, Traveling Jib-**  
Case Mfg. Co., Columbus, O.

**Cranes, Traveling, Power-**

Alliance Machine Co., Alliance, O.  
Boston Bridge Works, Boston, Mass.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Inc., Cleveland, O.

Byram & Co., Inc., Detroit, Mich.  
Thomas Carlin's Sons, Allegheny, Pa.

Case Mfg. Co., Columbus, O.  
Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.  
Garry Iron & Steel Co., Cleveland, O.

Edwin Harrington, Son & Co., Philadelphia, Pa.

Lane Mfg. Co., Montpelier, Vt.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pawling & Harnischfeger, Milwaukee, Wis.  
Craig Ridgway & Son Co., Coatesville, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.

Shaw Electric Crane Co., Muskegon, Mich.

J. G. Speidel, Reading, Pa.  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.

McGeorge & Sons, Cleveland, O.

Manning, Maxwell & Moore, 85 Liberty St., New York.

S. Obermayer Co., Cincinnati, O.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

**Cranes, Wrecking-**  
Brown Hoisting Machinery Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Industrial Works, Bay City, Mich.

Wm. Sellers & Co. (Inc.), Philadelphia.

**Crank Boring Machines-**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Crank Hangers, Bicycle-**  
(See Bicycle Parts.)

**Crank Key Ejectors, Bicycle-**  
(See Ejectors, Bicycle Crank Key.)

**Crank Pin Machines, Portable-**

H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

**Crank Pins, Shafts-**  
(See Pins, Shafts.)

**Crank Pin Turning Machines-**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 25th and Callowhill Sts., Philadelphia, Pa.

H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

**Crank Planing Machines-**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Cranes, Bell-**

W. R. Ostrander & Co., 22 Dev St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Crank, Gas Engine-**  
Springfield Drop Forging Co., Springfield, Mass.

**Crate Hasps-**  
(See Hasps, Crate.)

**Crayons, Metal Workers' School, &c.-**

Jos. Dixon Crucible Co., Jersey City, N. J.

**Creners, Blacksmiths'-**  
Heller Bros. Co., Newark, N. J.

**Creepers, Ice-**  
Geo. E. Gay, Augusta, Me.

**Cresting, Galvanized Iron-**  
Wm. Bayley & Sons Co., Milwaukee, Wis.

Berger Mfg. Co., Canton, O.

W. N. Kratzer & Co., Pittsburgh, Pa.

**Crestings, Cast Iron-**  
(See Iron and Brass, Ornamental.)

**Cribs, Corn, Portable-**  
W. J. Adam, Joliet, Ill.

Denning Fence Works, Cedar Rapids, Ia.

Elliott & Reid Co., Richmond, Ind.

**Crimping Machines—**

Adrianne Machine Works, Brooklyn, N. Y.  
Bertsch & Co., Cambridge City, Ind.  
E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N.  
Clinton St., Chicago, Ill.  
Niagara Machine & Tool Works, Buffalo,  
N. Y.  
George A. Ohl & Co., Newark, N. J.  
Peck, Stow & Wilcox Co., 2/ Murray St.,  
New York.  
J. M. Robinson Mfg. Co., Cincinnati, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Merchant & Co., Inc., 517 Arch St.,  
Philadelphia, Pa.

**Crimping Rolls—**

(See Rolls, Crimping.)

**Crooks, Shepherd's—**

Iowa Farming Tool Co., Fort Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson,  
Mich.

**Croquet Sets—**

(See Sets, Croquet.)

**Cross Arm Braces—**

(See Telegraph and Telephone Supplies.)

**Cross Arms—**

(See Telegraph and Telephone Pole Sup-  
plies.)

**Crosscut Saws—**

(See Saws, Mill, Mulay, Crosscut, &c.)

**Crossings, Railroad—**

Allentown Rolling Mills, Allentown, Pa.

**Crowfeet, Iron—**

I. S. Spencer's Sons, Guilford, Ct.

**Crowns, Bicycle—**

(See Bicycle Parts.)

**Crowns, Bored for Diamond**

**Drills—**

Steel Set Diamond Co., 36 Gold St., N. Y.

**Crucibles—**

Baker & Co., Newark, N. J.  
Jos. Dixon Crucible Co., Jersey City, N. J.  
McCullough-Dalzell Crucible Co., Pitts-  
burgh, Pa.  
Henry W. Peabody & Co., 17 State St.,  
New York.

R. B. Seidel, Inc., 1334 Callowhill St.,  
Philadelphia, Pa.

**MERCHANTS.**

S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.

**Crucibles, Platinum—**

Baker & Co., Newark, N. J.  
J. Bishop & Co., Malvern, Pa.

**Crumbers, Bread—**

Gcodell Co., Antrim, N. H.

**Crusher Cates—**

Chrome Steel Works, Brooklyn, N. Y.  
Philadelphia Roll & Machine Co., 23d St.  
and Washington Ave., Philadelphia, Pa.

**Crushers, Ore and Rock—**

Allis-Chalmers Co., Home Insurance  
Bldg., Chicago, Ill.  
C. O. Bartlett & Snow Co., Cleveland, O.  
Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.  
Thomas Carlin's Sons Co., Allegheny, Pa.  
Geo. V. Cresson Co., 18th St. & Alle-  
gheny Ave., Philadelphia, Pa.  
Curry & Vannan, Danville, Pa.  
Farrel Foundry & Mach. Co., Ansonia, Ct.  
Fischer Foundry & Machine Co., Pitts-  
burgh, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.  
George A. Hogg I. & S. Foundry Co.,  
Pittsburgh, Pa.

Jeffrey Mfg. Co., Columbus, O.  
Philadelphia Roll & Machine Co., 23d St.  
and Washington Ave., Philadelphia, Pa.  
Poole Engineering & Machine Co., Balti-  
more, Md.

Tyrone Foundry & Machine Co., Tyrone,  
Pa.

United Engineering & Foundry Co., Pitts-  
burgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**

Contractors' Equipment Co., Betz Bldg.,  
Philadelphia, Pa.  
Fairbanks Co., 416 Broome St., New York.  
F. B. Maxim, Boston, Mass.  
Mesta Machine Co., Pittsburgh, Pa.  
Wickes Bros., Saginaw, Mich.

**Crushers, Ore and Rock.**

**Parts For—**

Latrobe Steel Co., Girard Bldg., Phila-  
delphia, Pa.  
Charles Mundt & Sons, 441-447 Pearl St.,  
New York.

Philadelphia Roll & Machine Co., 23d St.  
and Washington Ave., Philadelphia, Pa.  
Tyrone Foundry & Machine Co., Tyrone,  
Pa.

**Cube Head Bolts—**

(See Bolts, Special.)

**Culinary Baskets—**

(See Kitchen Articles, Wire.)

**Cultivators—**

American Fork & Hoe Co., Cleveland, O.  
Bateman Mfg. Co., Grenloch, N. J.  
Outaway Harrow Co., Higganum, Ct.  
Iowa Farming Tool Co., Fort Madison, Ia.  
Syracuse Chilled Plow Co., Syracuse,  
N. Y.

Whitman & Barnes Mfg. Co., Akron, O.

**Cupboard Bolts, Catches.**

&c.—(See Bolts, Catches, &c.)

**Cup Holders—**

(See Holders.)

**Cup Hooks—**

(See Hooks, Cup, Shoulder.)

**Cupola Linings—**

Northern Engineering Works, Detroit,  
Mich.

S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., Philadelphia, Pa.

Fortsmouth Harrison-Walker Co., Ports-  
mouth, O.

Presbrey Fire Brick Works, Taunton,  
Mass.

M. D. Valentine & Bro. Co., Woodbridge,  
N. J.

Whiting Foundry Equipment Co., Harvey,  
Ill.

**Cupolas—**

Byram & Co., Inc., Detroit, Mich.  
Thomas Carlin's Sons Co., Allegheny, Pa.  
Hill & Griffith Co., Cincinnati, O.  
Meehan Boiler & Construction Co., Low-  
ellville, O.

Northern Engineering Works, Detroit,  
Mich.

S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., Philadelphia, Pa.

Wm. B. Pollock Co., Youngstown, O.  
Riter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. Sellers & Co., (Inc.), Philadelphia,

**J. D. Smith Foundry Supply Co.,** Cleveland, O.

**Whiting Foundry Equipment Co.,** Harvey, Ill.

**Cups, Aluminum—**  
Scovill Mfg. Co., Waterbury, Ct.

**Cups and Cones, Ball Bearing—**

Crosby Co., Buffalo, N. Y.  
Federal Mfg. Co., Cleveland, O.

**New Britain Hardware Mfg. Co.,** New Britain, Ct.

**Cups, Children's. Shaving. &c., Silver Plated—**

International Silver Co., 9-13 Madison Lane, New York.

**Cups, Grease—**  
Charles H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Crane Co., Chicago, Ill.  
Lunkenheimer Co., Cincinnati, O.

**Robins Conveying Belt Co.,** 17-22 Park Row, New York.

**Walworth Mfg. Co.,** Boston, Mass.

**Cups, Oil—**  
Chas. H. Besly Co., 10-12 No. Canal St., Chicago, Ill.

Crane Co., Chicago, Ill.  
Eymon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

Lunkenheimer Company, Cincinnati, O.  
McNab & Hartin Mfg. Co., 56 John St., New York.

**Pedrick & Ayer Co.,** 87 Liberty St., N. Y.

**Walworth Mfg. Co.,** Boston, Mass.

**Cups, Pocket—**  
Scovill Mfg. Co., Waterbury, Ct.

**Cups, Shoemaker's Nail—**  
Louis Sacks Iron Foundry, Newark, N. J.

**Curbs, Pump—**  
William L. Barrett, Bristol, Ct.

**St. Joseph Pump & Mfg. Co.,** St. Joseph, Mo.

**Curled Hair—**  
(See Hair, Curled.)

**Curling Sets—**  
(See Sets.)

**Curry Combs—**  
(See Combs, Curry.)

**Curtain and Upholstery Fixtures—**

M. S. Brooks & Son, Chester, Ct.  
Federal Mfg. Co., Cleveland, O.

Stover Mfg. Co., Freeport, Ill.  
Wire Goods Co., Worcester, Mass.

**Curtain Pole Fixtures—**  
Baker McMillen Co., Akron, O.

**Curtain Rods—**  
Wire Goods Co., Worcester, Mass.

**Curtains, Car—**  
Federal Mfg. Co., Cleveland, O.

**Curtain Straps—**  
(See Straps, Curtain.)

**Cushions, Steel Wire—**  
Wire Goods Co., Worcester, Mass.

**Cuspidors—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bridgeport Brass Co., Bridgeport, Ct.  
S. Cheney & Son, Manlius, N. Y.

Rome Mfg. Co., Rome, N. Y.  
Sidney Sherrard & Co., Buffalo, N. Y.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Cutlery Cases—**  
(See Cases, Cutlery.)

**Cutlery, Pocket—**

Hermann Boker & Co., 101-103 Duane St., New York.

John Chatillon & Sons, 85-93 Cliff St., N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.  
Holley Mfg. Co., Lakeville, Ct.

Northfield Knife Co., Northfield, Ct.  
Schatt & Morgan Cutlery Co., Titusville, Pa.

A. L. Silberstein, 459-461 Broadway, N. Y.  
Wiebusch & Hilger, 9 Murray St., N. Y.

**Cutlery, Silver Plated—**  
American Cutlery Co., Chicago, Ill.

Goodell Co., Antrim, N. H.

**Cutlery, Table—**  
American Cutlery Co., Chicago, Ill.

Goodell Co., Antrim, N. H.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Larders, Frary & Clark, New Britain, Ct.  
Charles Parker Co., Meriden, Ct.

**Cut-Off, Rain Water—**  
Berger Bros. Co., 231-233 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.  
Canton Steel Roofing Co., Canton, O.

Clark, Quisen & Morse, Peoria, Ill.  
Garry Iron & Steel Co., Cleveland, O.

**MERCHANTS—**  
Bassett-Presley Co., Cleveland, O.

**Cut Outs, Electric—**  
Gilmore Electric Co., So. Boston, Mass.

**Cutter and Punch, Round Belt—**

Harvey Hubbell, Bridgeport, Ct.

**Cutter Grinding Machines—**  
(See Grinding Machines, Cutter and Reamer.)

**Cutters and Lighters, Cigar—**

Erie Specialty Co., Erie, Pa.

**Cutters and Corers, Apple—**  
Rollman Mfg. Co., Mt. Joy, Pa.

**Cutters, Automatic Pinion—**  
(See Pinion Cutters, Automatic.)

**Cutters, Axle—**  
Buffalo Forge Co., Buffalo, N. Y.

Butterfield & Co., Derby Line, Vt.

**Cutters, Bar—**  
Buffalo Forge Co., Buffalo, N. Y.

C. S. Mersick & Co., New Haven, Ct.  
Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.  
Henry Pels & Co., 66 Broad St., N. Y.

**Cutters, Board—**  
Chambers Bros. Co., 52d St. below Lancaster Ave., Philadelphia, Pa.

**Cutters, Boiler Tube—**  
D. Saunders Sons, Yonkers, N. Y.

Stow Flexible Shaft Co., 28th & Callowhill Sts., Philadelphia, Pa.

**Cutters, Bolt—**  
Acme Machinery Co., Cleveland, O.

Boydton & Plummer, Worcester, Mass.  
H. B. Brown & Co., East Hampton, Ct.

Petrick & Harvey Mach. Co., Baltimore.  
Helwig Mfg. Co., St. Paul, Minn.

Howard Iron Works, Buffalo, N. Y.  
National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Pratt & Whitney Co., Hartford, Ct.  
 E. F. Reece Co., Greenfield, Mass.  
 Reliance Machine & Tool Co., Cleveland.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 Standard Engineering Co., Ellwood City, Pa.  
 Webster & Perks Tool Co., Springfield, O.  
 Wells Bros. & Co., Greenfield, Mass.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.

## MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 Brown-Wales Co., Boston, Mass.  
 J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Marshall & Buschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.  
 New Haven Mfg. Co., New Haven, Ct.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 J. R. Vandeyck Co., 8 Dey St., New York.

**Cutters, Butter-**  
 Cleveland Galvanizing Works, Cleveland.

**Cutters, Button Hole-**  
 Eyelet Tool Co., Boston, Mass.

**Cutters, Cabbage-**  
 E. Heinisch's Sons Co., Newark, N. J.

**Cutters, Cam-**  
 American Fork & Hoe Co., Cleveland, O.

**Cutters, Chain Link-**  
 Standard Machinery Co., Providence, R. I.

**Cutters, Chain Link-**  
 Brown & Sharpe Mfg. Co., Providence, R. I.

**Cutters, Cigar-**  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Cutters, Cigar-**  
 Billings & Spencer Co., Hartford, Ct.  
 Erie Specialty Co., Erie, Pa.

**Cutters, Convex and Concave-**  
 Brown & Sharpe Mfg. Co., Providence, R. I.

**Cutters, Cigar-**  
 Gay & Ward, Athol, Mass.

**Cutters, Cigar-**  
 Morse Twist Drill & Machine Co., New Bedford, Mass.

**Cutters, Cigar-**  
 Pratt & Whitney Co., Hartford, Ct.  
 Standard Tool Co., Cleveland, O.

**Cutters, Cork, Cloth, Leather, Paper-**  
 Henry Disston & Sons, Philadelphia, Pa.

**Cutters, Cork, Cloth, Leather, Paper-**  
 National Saw Co., Newark, N. J.  
 Simonds Mfg. Co., Fitchburg, Mass.

**Cutters, Feed and Ensilage-**  
 A. Buch's Sons Co., Elizabethtown, Pa.

**Cutters, Feed and Ensilage-**  
 Long & Allstatter Co., Hamilton, O.  
 New Mfg. Co., Canton, O.  
 Silver Mfg. Co., Salem, O.

**Cutters, File-**  
 Utica Drop Forge & Tool Co., Utica, N. Y.

**Cutters, Gear-**  
 (See Cutters, Milling, and also Gear Cutting Machines.)

**Cutters, Glass-**  
 W. L. Barrett, Bristol, Ct.

**Cutters, Glass-**  
 Fletcher, Terry & Co., Forestville, Ct.

Goodell-Pratt Co., Greenfield, Mass.  
 H. H. Mayhew Co., Shelburne Falls, Mass.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Glass, Diamond-**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Cutters, Paper—**

Howard Iron Works, Buffalo, N. Y.  
Ludlow-Saylor Wire Co., St. Louis, Mo.

**Cutters, Pipe and Tube—**

American Tube & Stamping Co., Bridgeport, Ct.

Armstrong Mfg. Co., Bridgeport, Ct.  
Barnes Tool Co., New Haven, Ct.

Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Curtis & Curtis Co., Bridgeport, Ct.

Faribanks Co., 416 Broome St., New York.

Fox Machine Co., Grand Rapids, Mich.

Hollands Mfg. Co., Erie, Pa.

C. E. Jennings Co., 42 Murray St., N. Y.

P. Hollingsworth Morris, 1501 So. Front St., Philadelphia, Pa.

Morse Twist Drill & Machine Co., New Bedford, Mass.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

D. Saunders' Sons, Yonkers, N. Y.

Trimont Mfg. Co., Roxbury, Mass.

Walworth Mfg. Co., Boston, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

**Cutters, Potato—**

Rollman Mfg. Co., Mt. Joy, Pa.

**Cutters, Reamer and Twist Drill—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Gay & Ward, Athol, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Walworth Mfg. Co., Boston, Mass.

**Cutters, Rod—**

Belden Machine Co., New Haven, Ct.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Chandler & Farquhar, Boston, Mass.

C. B. Merick & Co., New Haven, Ct.

Niagara Machine & Tool Works, Buffalo, N. Y.

Watson-Stillman Co., 204-210 East 43d St., New York.

**Cutters, Root, Vegetable—**

A. Buch's Sons Co., Elizabethtown, Pa.

Cutaway Harrow Co., Higganum, Ct.

Lane Bros. Co., Poughkeepsie, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

**Cutters, Screw Slotting—**

Etna Mfg. Co., 253 Broadway, N. Y.

**Cutters, Sewing Thread—**

H. O. Cook Co., Ansonia, Ct.

**Cutters, Slat, Kant, &c.—**

E. C. Atkins & Co., Indianapolis, Ind.

Henry Diston & Sons, Philadelphia, Pa.

Enterprise Mfg. Co., Philadelphia, Pa.

Landers, Frary & Clark, New Britain, Ct.

National Saw Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Cutters, Smoked Beef—**

Coldwell Lawn Mower Co., Newburgh, N. Y.

Enterprise Mfg. Co., Philadelphia, Pa.

New York Lock Co., Branford, Ct.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Cutters, Sprocket Wheel—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

**Cutters, Spline—**

Adams Co., Dubuque, Ia.

Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.

Falkenau-Sinclair Machinery Co., 109 N. 22d St., Philadelphia, Pa.

Gould & Eberhardt, Newark, N. J.

Hilles & Jones Co., Wilmington, Del.

Chas. Leffler & Co., Brooklyn, N. Y.

Long & Allstatter Co., Hamilton, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

F. B. Shuster Co., New Haven, Ct.

Standard Machinery Co., Providence, R. I.

**Cutters, Stay Bolt—**

Acme Machinery Co., Cleveland, O.

Helwig Mfg. Co., St. Paul, Minn.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

**Cutters, Thistle or Weed—**

American Fork & Hoe Co., Cleveland, O.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Cutters, Tobacco and Root—**

Enterprise Mfg. Co., Philadelphia, Pa.

Erie Specialty Co., Erie, Pa.

North Bros. Mfg. Co., Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

**Cutters, T Slot—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Morse Twist Drill & Machine Co., New Bedford, Mass.

**Cutters, Vegetable—**

E. C. Atkins & Co., Indianapolis, Ind.

Henry Diston & Sons, Philadelphia, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Cutters, Veneer—**

Farrel Foundry & Mach. Co., Ansonia, Ct.

**Cutters, Washer—**

Braunsdorf-Mueller & Co., Elizabeth, N. J.

Sargent & Co., 151 Leonard St., N. Y.

Smith & Hemenway Co., 236 Broadway, New York.

**Cutters, Wire—**

Otis A. Smith, Rockfall, Ct.

Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Helwig Mfg. Co., St. Paul, Minn.

J. M. King & Co., Watford, N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

H. K. Porter, Everett, Mass.

F. B. Shuster Co., New Haven, Ct.

(See also Ylcers.)

**Cutting and Straightening Machines, Wire—**  
(See Straightening and Cutting Machines, Wire.)

**Cutting Attachments, Rack—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Cincinnati Milling Machine Co., Cincinnati, O.  
Garvin Machine Co., Spring and Varick Sts., New York.

**Cutting Dies, Nippers—**  
(See Dies, Nippers.)  
**Cutting Machines—**  
Blake & Johnson, Waterbury, Ct.  
E. J. Manville Mach. Co., Waterbury, Ct.

**Cutting Machines, Rack—**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
F. E. Reed Co., Worcester, Mass.  
Dwight Slate Machine Co., Hartford, Ct.

**MERCHANTS.**  
Hill, Clarke & Co., Boston, Mass.  
**Cutting Machines, Tie—**  
Williams, White & Co., Moline, Ill.  
**Cutting Machines, Wire—**  
(See Straightening and Cutting Machines, Wire.)

**Cutting-Off and Centering Machines, Double, for Axes—**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Cutting-Off Machines—**  
Billings & Spencer Co., Hartford, Ct.  
Cleveland Punch & Shear Works, Cleveland, O.  
W. P. Davis Machine Co., Rochester, N. Y.  
Espan-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.  
Fawcus Machine Co., Pittsburgh, Pa.  
Hurlbut Rogers Machine Co., South Sudbury, Mass.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Pratt & Whitney Co., Hartford, Ct.

**MERCHANTS.**  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
J. R. Vandyck Co., 8 Dey St., N. Y.  
**Cutting-Off Machines, Cold Saw—**  
Espan-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Pratt & Whitney Co., Hartford, Ct.

**MERCHANTS.**  
Fairbanks Co., 416 Broome St., New York.  
J. R. Vandyck Co., 8 Dey St., N. Y.  
**Cutting-Off Machines for Self Hardening Steel—**  
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

**Cutting-Off Tools—**  
Armstrong Bros. Tool Co., Chicago, Ill.  
Billings & Spencer Co., Hartford, Ct.  
O. K. Tool Holder Co., Shelton, Ct.  
Pratt & Whitney Co., Hartford, Ct.  
Dwight Slate Machine Co., Hartford, Ct.  
Walworth Mfg. Co., Boston, Mass.

**Cutting Presses—**  
(See Presses, Cutting and Finishing.)  
**Cycles—**  
(See Bicycles and Sundries.)  
**Cycle Hangers—**  
(See Hangers.)

**Cyclometers—**  
John H. Graham & Co., 113 Chambers St., New York.  
Veeder Mfg. Co., Hartford, Ct.

**Cylinder Head Turning Machines—**  
(See Turning Machines, Cylinder Head.)  
**Cylinders, Ammonia and Carbonic Acid—**  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.  
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
National Tube Co., Pittsburgh, Pa.  
Wm. B. Pollock Co., Youngstown, O.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Cylinders for Hydraulic Elevators—**  
Dimmick Pipe Co., Birmingham, Ala.

**Cylinders, Pump—**  
(See Well Supplies and Tools.)

**Cylinders, Steel—**  
Avery Stamping Co., Cleveland, O.  
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
National Tube Co., Pittsburgh, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Damper Clips, Regulators—**  
(See Clips, Regulators.)

**Dampers, Pipe—**  
Adams Co., Dubuque, Ia.  
Arcade Mfg. Co., Freeport, Ill.  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
S. Cheney & Son, Manlius, N. Y.  
Fanner Mfg. Co., Cleveland, O.  
Hollands Mfg. Co., Erie, Pa.  
S. M. Howes Co., Boston, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Plenger & Henger Mfg. Co., St. Louis, Mo.

Root Bros. Co., Plymouth, O.  
Sidney Shepard & Co., Buffalo, N. Y.  
Stover Mfg. Co., Freeport, Ill.  
Taylor & Boggis Foundry Co., Cleveland, O.  
A. C. Williams, Ravenna, O.

**Dandy Rolls—**  
(See Rolls, Dandy.)

**Darners, Glove and Stocking—**  
Bak & McMillen Co., Akron, O.

**Dashes and Fenders, Carriage, Automobile, &c.—**  
Fedders Mfg. Co., Buffalo, N. Y.  
McKinnon Dash Co., Buffalo, N. Y.

**Dashes, Screen—**  
Charles Mundt & Sons, 441-447 Pearl St., New York.  
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Daubers, Shoe—**  
Kilbourne Mfg. Co., Fair Haven, Vt.

- Dead Eyes—**  
(See Eyes, Dead, Bull's, &c.)
- Deck Blocks, Lights, &c.—**  
(See Blocks, Lights, &c.)
- Deckhanger Bolts—**  
(See Bolts, Special.)
- Dehorning Saws—**  
(See Saws, Dehorning.)
- Delivery Wagons—**  
(See Wagons, Delivery.)
- Demagnetizers. Watch—**  
Holtzer-Cabot Electric Co., Boston, Mass.
- Dental Shears and Snips—**  
(See Shears and Snips, Dental.)
- Dental Wheels—**  
(See Wheels, Dental.)
- Depth Gauges—**  
(See Gauges, Depth.)
- Derrick Fittings—**  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Thomas Carlin's Sons, Allegheny, Pa.  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
A. Leschen & Sons Rope Co., St. Louis, Mo.  
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Derrick—**  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Thomas Carlin's Sons, Allegheny, Pa.  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
A. Leschen & Sons Rope Co., St. Louis, Mo.  
Lidgerwood Mfg. Co., 96 Liberty St., New York.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Northern Engineering Works, Detroit, Mich.  
F. R. Patch Mfg. Co., Rutland, Vt.  
Riter-Conley Mfg. Co., Pittsburgh, Pa.  
J. G. Speidel, Reading, Pa.
- MERCHANTS.**  
Apex Equipment Co., 11 Broadway, N. Y.  
Browning Engineering Co., Cleveland, O.  
Carlin Machinery & Supply Co., Allegheny, Pa.  
Jos. F. McCoy Co., 157 Chambers St., New York.  
S. Obermayer Co., Cincinnati, O.
- Desks, Children's—**  
Maine Mfg. Co., Nashua, N. H.
- Desk Slides—**  
(See Slides, Desk.)
- Desks, Office—**  
Globe-Wernicke Co., Cincinnati, O.  
J. D. Warren Mfg. Co., Chicago, Ill.
- Desk Specialties, Silver Plated (Inkstands, Calendars, Pen Wipers, Paper Files)—**  
International Silver Co., 9-13 Maiden Lane, New York.
- Diamond Cutters—**  
J. L. Osgood, Buffalo, N. Y.  
Steel Cut Diamond Co., 36 Gold St., N. Y.
- Diamond Emery Wheel Dressers—**  
(See Dressers, Emery Wheels.)
- Diamond Points—**  
(See Points.)
- Diamond Setters, Tool—**  
Steel Cut Diamond Co., 36 Gold St., N. Y.
- Diamond Tools—**  
(See Tools, Diamond.)
- Dictionary Holders—**  
(See Holders, Dictionary.)
- Die Blocks—**  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
Pratt & Whitney Co., Hartford, Ct.  
George B. Sennett Co., Youngstown, O.  
Tindel-Morris Co., Eddystone, Pa.  
Vulcan Crucible Steel Co., Aliquippa, Pa.
- Die Heads, Screw Cutting—**  
Acme Machinery Co., Cleveland, O.  
Geometric Drill Co., Westville, Ct.  
Jones & Lamson Machine Co., Springfield, Vt.
- Die Holders, for Screw Machines—**  
Brown & Sharpe Mfg. Co., Providence, R. I.
- Die Holders, Plate—**  
(See Holders, Plates.)
- Die Makers—**  
(See Die Sinkers.)
- Dies, Adjustable, Expand- ing—**  
Acme Machinery Co., Cleveland, O.  
E. W. Bliss Co., Brooklyn, N. Y.  
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Etna Mfg. Co., 23 Broadway, New York.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Pratt & Whitney Co., Hartford, Ct.  
E. F. Reece Co., Greenfield, Mass.  
D. Saunders' Sons, Yonkers, N. Y.  
Standard Machinery Co., Providence, R. I.
- Dies and Stamps, Steel—**  
(See Stamps and Dies, Steel.)
- Dies and Taps—**  
(See Stocks, Taps and Dies.)
- Dies, Automatic—**  
E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Geometric Drill Co., New Haven, Ct.  
Jones & Lamson Machine Co., Springfield, Vt.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Reliance Mach. & Tool Co., Cleveland, O.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.
- Dies, Blanking—**  
Blake & Johnson, Waterbury, Ct.  
Cleveland Stamping & Tool Co., Cleveland, O.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Falkenau-Sinclair Mach. Co., 109 N. 23d St., Philadelphia, Pa.  
Globe Machine & Stamping Co., Cleveland, O.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Kilborn & Bishop Co., New Haven, Ct.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo, N. Y.

**Standard Machinery Co.,** Providence, R. I.  
**V. & O. Press Co.,** Brooklyn, N. Y.

**Dies, Chilled Cast Wire—**  
Philadelphia Roll & Machine Co., 23d  
St., & Washington Ave., Philadelphia.

**Dies, Cutting—**  
Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Cleveland Galvanizing Works, Cleveland.  
Cleveland Stamping & Tool Co., Cleve-  
land, O.

Consolidated Press & Tool Co., 96-100 N.  
Clinton St., Chicago, Ill.  
Hilles & Jones Co., Wilmington, Del.  
Hogson & Pettis Mfg. Co., New Haven,  
Ct.

Kilborn & Bishop Co., New Haven, Ct.  
Chas. Leffler & Co., Brooklyn, N. Y.  
John Loyd Co., 558 Water St., New York.  
Niagara Machine & Tool Works, Buffalo,  
N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pratt & Whitney Co., Hartford, Ct.  
Chas. F. Reece, Greenfield, Mass.  
Richard Mfg. Co., Bloomsburg, Pa.  
George B. Sennett Co., Youngstown, O.  
Sigourney Tool Co., Hartford, Ct.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.  
Webster & Perks Tool Co., Springfield, O.  
Wells Bros. Co., Greenfield, Mass.  
L. & I. J. White Co., Buffalo, N. Y.  
Wilson & Smith, Worcester, Mass.

**Dies, Diamond, Metal Draw-  
ing—**

Steel Set Diamond Co., 36 Gold St., N. Y.

**Dies, Embossing—**  
Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N.  
Clinton St., Chicago, Ill.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Geo. M. Ness, Jr., 61 Fulton St., N. Y.  
Schwerdtle Stamp Co., Bridgeport, Ct.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.

**Dies for Metal Ceiling  
Work—**

Canton Foundry & Machine Co., Can-  
ton, O.

**Die Sinkers—**  
Adriance Machine Works, Brooklyn, N. Y.  
American Tube & Stamping Co., Bridge-  
port, Ct.

Billings & Spencer Co., Hartford, Ct.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Canton Foundry & Machine Co., Can-  
ton, O.

E. D. Clapp Mfg. Co., Auburn, N. Y.  
Cleveland Galvanizing Works, Cleveland.  
Crowe Metal Mfg. Co., 71 W. Jackson  
Bldg., Chicago, Ill.

Globe Machine & Stamping Co., Cleve-  
land, O.

Hay-Budden Mfg. Co., Brooklyn, N. Y.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Howard Iron Works, Buffalo, N. Y.

Keystone Drop Forge Works, Chester, Pa.  
E. Konigsloew Stamping & Tool Works,  
Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo,  
N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Pratt & Whitney Co., Hartford, Ct.  
Richard Mfg. Co., Bloomsburg, Pa.  
Schwerdtle Stamp Co., Bridgeport, Ct.  
George B. Sennett Co., Youngstown, O.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.  
Wheeling Mold & Foundry Co., Wheel-  
ing, W. Va.

J. H. Williams & Co., Brooklyn, N. Y.  
Wilson & Smith, Worcester, Mass.

**Die Sinkers' Vises—**  
(See Vises, Die Sinkers'.)

**Dies, Opening—**

Acme Machinery Co., Cleveland, O.  
Geometric Drill Co., New Haven, Ct.  
Pratt & Whitney Co., Hartford, Ct.  
Wells Bros. Co., Greenfield, Mass.  
Wiley & Russell Mfg. Co., Greenfield,  
Mass.

**Dies, Pressing—**  
Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.

Cleveland Stamping & Tool Co., Cleve-  
land, O.

Consolidated Press & Tool Co., 96-100 N.  
Clinton St., Chicago, Ill.

Falkenau-Sinclair Mach. Co., 109 N. 22d  
St., Philadelphia, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Kilborn & Bishop Co., New Haven, Ct.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo,  
N. Y.

George A. Ohl & Co., Newark, N. J.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.

**Dies, Punching—**

Acorn Brass Mfg. Co., 206 Fulton St.,  
New York.

Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.

Cleveland Galvanizing Works, Cleveland.  
Cleveland Punch & Shear Works Co.,  
Cleveland, O.

Consolidated Press & Tool Co., 96-100 N.  
Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-  
259 Fulton St., Chicago, Ill.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

E. Konigsloew Stamping & Tool Works,  
Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo,  
N. Y.

George A. Ohl & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

George B. Sennett Co., Youngstown, O.

Standard Machinery Co., Providence, R. I.

V. & O. Press Co., Brooklyn, N. Y.

Wilson & Smith, Worcester, Mass.

**Dies, Self Opening—**

Acme Machinery Co., Cleveland, O.

**Dies, Shipyard—**

(See Punches and Dies.)

**Dies, Solid Bolt—**

Etna Mfg. Co., 253 Broadway, New York.



**Dies, Solid Pipe—**

Crane Co., Chicago, Ill.  
 Etna Mfg. Co., 253 Broadway, New York.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.  
 Pratt & Whitney Co., Hartford, Ct.  
 D. Saunders' Sons, Yonkers, N. Y.  
 Walworth Mfg. Co., Boston, Mass.  
 Wells Bros. & Co., Greenfield, Mass.  
 F. E. Wells & Son, Greenfield, Mass.

**Dies, Stamping—**

Acorn Brass Mfg. Co., 206 Fulton St., New York.  
 Adriance Machine Works, Brooklyn, N. Y.  
 Avery Stamping Co., Cleveland, O.  
 Blake & Johnson, Waterbury, Ct.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Cleveland Galvanizing Works, Cleveland.  
 Cleveland Punch & Shear Works Co., Cleveland, O.  
 Cleveland Stamping & Tool Co., Cleveland, O.  
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-255 Fulton St., Chicago, Ill.  
 Erdle & Schenck, Rochester, N. Y.  
 Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
 Globe Machine & Stamping Co., Cleveland, O.

Hilles & Jones Co., Wilmington, Del.  
 Kilborn & Bishop Co., New Haven, Ct.  
 E. Koningalov Stamping & Tool Works, Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.  
 Frank Mossberg Co., Attleboro, Mass.  
 Niagara Machine & Tool Works, Buffalo, N. Y.

Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.  
 Richard Mfg. Co., Bloomsburg, Pa.  
 Standard Machinery Co., Providence, R. I.  
 V. & O. Press Co., Brooklyn, N. Y.  
 J. H. Williams & Co., Brooklyn, N. Y.  
 Wilson & Smith, Worcester, Mass.

**Dies, Stencil—**

Geo. M. Ness, Jr., 61 Fulton St., N. Y.  
 Schwedite Stamp Co., Bridgeport, Ct.

**Die Stocks, Ratchet—**

Pratt & Whitney Co., Hartford, Ct.  
 Walworth Mfg. Co., Boston, Mass.  
 Wells Bros. Co., Greenfield, Mass.

**Dies, Welding—**

P. F. Burke, Boston, Mass.

**Dies, Wiring—**

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

**Differential Pulley Blocks—**

(See Blocks, Differential Pulley.)

**Digesters, Pulp—**

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

**Diggers, Post Hole—**

Avery Stamping Co., Cleveland, O.

Henry Diston & Sons, Philadelphia, Pa.

Iwan Bros., Sreator, Ill.

F. E. Kohler & Co., Canton, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.

J. E. Porter Co., Ottawa, Ill.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

(See also Augers, Post Hole.)

**Diggers, Potato—**

E. R. Allen Foundry Co., Corning, N. Y.

American Fork & Hoe Co., Cleveland, O.

**Dimension Gauges—**

(See Gauges, Dimension.)

**Dinner Casters—**

(See Casters, Silver Plated.)

**Dinner Pails—**

(See Pails, Dinner.)

**Dippers and Drinking Cups, Nickel Plated—**

Rome Mfg. Co., Rome, N. Y.

**Disc Notching Machines—**

(See Notching Machines, Armature Disc.)

**Discs, Armature—**

Avery Stamping Co., Cleveland, O.

Wilson & Smith, Worcester, Mass.

**Disc Sharpeners—**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

**Discs, Harrow—**

Cheswick Mfg. Co., Cheswick, Pa.

**Discs, Hot or Cold Iron Cutting—**

Henry Diston & Sons, Philadelphia, Pa.

**Discs, Plow—**

Cheswick Mfg. Co., Cheswick, Pa.

**Discs, Rubber—**

(See Washers and Discs, Rubber.)

**Discs, Valve—**

Crane Co., Chicago, Ill.

Jenkins Bros., 71 John St., New York.

Walworth Mfg. Co., Boston, Mass.

**Discs, Baking—**

New York Stamping Co., Brooklyn, N. Y.

**Dish Drainers—**

(See Drainers, Kitchen Articles.)

**Dishes, Berry, Butter, Fruit, Meat, &c., Silver Plated—**

International Silver Co., 9-13 Maiden Lane, N. Y.

**Dishes, Chafing—**

Goodwin & Kintz Co., Winsted, Ct.

International Silver Co., 9-13 Maiden Lane, N. Y.

New York Stamping Co., Brooklyn, N. Y.

**Dishes, Chafing, Electric—**

United Electric Heating Co., Detroit, Mich.

**Dishes, Metal Serving—**

Rome Mfg. Co., Rome, N. Y.

**Dishes, Soap—**

Reading Hardware Co., Reading, Pa.

A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville, Pa.

**Dishes, Wooden Butter—**

Richmond Cedar Works, Richmond, Va.

**Dispensers, Druggists—**

Delphos Can Co., Delphos, O.

**Distilling Apparatus—**

E. E. Badger & Sons Co., Boston, Mass.

**Ditching Shovels—**

(See Shovels, Tiling or Ditching.)

**Divider Pencil Attachments—**

(See Pencil Attachments, Divider.)

**Dividers, Compasses, &c.—**

(See Compasses, Dividers, &c.)

**Dividing Heads—**

(See Heads, Dividing, Indexing.)

**Dock Spikes—**

(See Spikes, Dock, Wharf, &c.)

**Document Boxes—**

(See Boxes, Document.)

**Dog Calls, Chain—**

(See Calls, Chain.)

**Dog Furnishings—**

Oneida Community, Kenwood, N. Y.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
Tower & Lyon Co., 95 Chambers St.,  
New York.  
Union Hardware Co., Torrington, Ct.  
Wire Goods Co., Worcester, Mass.

**Dogs, Clamp—**

Armstrong Bros. Tool Co., 617-621 Austin  
Ave., Chicago, Ill.  
Billings & Spencer Co., Hartford, Ct.  
Wm. G. Le Count, So. Norwalk, Ct.

**Dogs, Lath—**

Armstrong Bros. Tool Co., 617-621 Austin  
Ave., Chicago, Ill.  
Chas. H. Besly & Co., 10-12 No. Canal  
St., Chicago, Ill.  
Billings & Spencer Co., Hartford, Ct.  
Fairbanks Co., 416 Broome St., New York.  
Wm. G. Le Count, So. Norwalk, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
J. H. Williams & Co., Brooklyn, N. Y.

**Dogs, Milling Machine—**

J. H. Williams & Co., Brooklyn, N. Y.

**Dogs, Ring and Chain—**

Standard Chain Co., Pittsburgh, Pa.

**Dogs, Saw Mill—**

Allis-Chalmers Co., Home Insurance  
Building, Chicago, Ill.  
E. C. Atkins & Co., Indianapolis, Ind.  
Filer & Stowell Co., Milwaukee, Wis.  
Soule Steam Feed Works, Meridian, Miss.  
Southern Engine & Boiler Works, Jack-  
son, Tenn.  
Walter A. Zelnicker Supply Co., St.  
Louis, Mo.

**Dollies, Timber—**

J. R. Clark Co., Minneapolis, Minn.  
Peter Gerlach Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Colum-  
bus, O.

Morley Bros., Saginaw, Mich.

Soule Steam Feed Works, Meridian, Miss.  
Standard Scale & Supply Co., Pittsburgh.

**Domes for Observatories—**

W. N. Kratzer & Co., Pittsburgh, Pa.

**Door Bell Handles—**

(See Handles, Door Bell.)

**Door Bells, Bolts, Checks,**

**&c.—**

(See Bells, Bolts, Checks, &c.)

**Doors and Shutters, Iron**

**and Steel—**

Wm. Bayley & Sons Co., Milwaukee, Wis.  
Benger Mfg. Co., Canton, O.  
Bethlehem Foundry & Machine Co., South  
Bethlehem, Pa.  
Donovan Wire & Iron Co., Toledo, O.  
Forest City Steel & Iron Co., Cleveland,  
O.

Garry Iron & Steel Co., Cleveland, O.

Glen Mfg. Co., Ellwood City, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred. J. Meyers Mfg. Co., Hamilton, O.

Moseley Iron Bridge & Roof Co., 39 Cort-  
landt St., New York.

George A. Oehl & Co., Newark, N. J.

Stewart Iron Works, Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

**Doors, Ash Pit—**

(See Iron Work, Builders'.)

**Doors, Automatic Hatch—**

Morse, Williams & Co., 1105 Frankford  
Ave., Philadelphia, Pa.  
Salem Elevator Works, Salem, Mass.  
Warsaw Elevator Co., Warsaw, N. Y.

**Doors, Automatic, House—**

Perfect Sliding Door Co., Bridgeport, Ct.

**Doors, Bronze—**

Glen Mfg. Co., Ellwood City, Pa.  
Murdock Corporation, Boston, Mass.

**Doors, Core Oven—**

Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.

**Doors, Screen—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

A. J. Phillips Co., Fenton, Mich.

**Doors, Screen, to order—**

Phenix Mfg. Co., Milwaukee, Wis.  
A. J. Phillips Co., Fenton, Mich.

**Door Structures, Sliding—**

Perfect Sliding Door Co., Bridgeport, Ct.

**Doors, Vault—**

(See Vaults, Fire and Burglar Proof.)

**Dormant Scales—**

(See Scales, Dormant.)

**Double Pointed Tacks—**

(See Tacks, Double Pointed.)

**Dowel Pins and Screws—**

(See Pins, Dowel.)

**Dowels—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
W. B. Hartigan, Collinsville, Ct.

Mathew Lanz & Sons, Pittsburgh, Pa.

**Dowels, Pattern Makers—**

New Britain Hardware Mfg. Co., New  
Britain, Ct.

Timmis & Clissold, Bound Brook, N. J.

**Dowels, Trunk—**

J. H. Sessions & Son, Bristol, Ct.

**Dowel Tools—**

(See Tools, Dowel, Pin, &c.)

**Draft, Forced and Exhaust,**

**Apparatus—**

American Blower Co., Detroit, Mich.  
Buffalo Forge Co., Buffalo, N. Y.

B. F. Sturtevant Co., Boston, Mass.

**Drafting Room Furniture—**

(See Furniture, Drafting Room.)

**Draft, Mechanical Plants**

**for—**

American Blower Co., Detroit, Mich.  
Buffalo Forge Co., Buffalo, N. Y.

B. F. Sturtevant Co., Boston, Mass.

**Draftsman's Scales—**

(See Scales, Draftsman's.)

**Draftsman's Supplies—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Drags, Saws—**

(See Saws, Mill, Muly, &c.)

**Drags, Ship—**

Edson Mfg. Co., Boston, Mass.

**Drainers, Cellar—**

Julian D'Este Co., Boston, Mass.

**Drainers, Dish—**

Fred. J. Meyers Mfg. Co., Hamilton, O.  
Parker Wire Goods Co., Worcester, Mass.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Drain Spades—**

American Fork & Hoe Co., Cleveland, O.  
 Avery Stamping Co., Cleveland, O.  
 Iwan Bros., Greatert, Ill.  
 Mt. Pleasant Tool Co., Mt. Pleasant, Pa.  
 Ney Mfg. Co., Canton, O.  
 Star Shovel & Range Co., Vincennes, Ind.

**Draw Benches—**

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.  
 Gould & Eberhardt, Newark, N. J.  
 Morgan Construction Co., Worcester, Mass.  
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
 George A. Ohl & Co., Newark, N. J.  
 Richard Mfg. Co., Bloomsburg, Pa.  
 Standard Machinery Co., Providence, R. I.  
 Hugh L. Thompson, Waterbury, Ct.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.  
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
 Waterbury Machine Co., Waterbury Ct.  
 Watson-Stillman Co., 204 East 43d St., New York.

**Draw Benches, Continuous—**  
 Waterbury Machine Co., Waterbury, Ct.

**Draw Benches, Hydraulic—**  
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
 Watson-Stillman Co., 204 East 43d St., New York.

**Drawer Handles, Knobs, Pulls—**  
 (See Handles, Knobs, Pulls.)

**Drawheads, Car—**  
 Atlas Bolt & Mfg. Co., Cleveland, O.

**Drawing Knives, Presses—**  
 (See Knives, Presses.)

**Drawing Machinery, Wire—**  
 (See Draw Benches.)

**Drawing Materials—**  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

**Dredging Machinery—**  
 Kenfel & Esser Co., 127 Fulton St., N. Y.

**Dredging Machinery—**  
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

**Dredging Machinery—**  
 A. Leschen & Sons Rope Co., St. Louis.

**Dredging Machinery—**  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

**Dredging Machinery—**  
 Wellman-Seaver-Morgan Co., Cleveland, O.

**Dressers, Diamond Grinding and Polishing Wheels—**  
 J. L. Osgood, Buffalo, N. Y.

**Dressers, Emery Wheel—**  
 Steel Set Diamond Co., 36 Gold St., N. Y.

**Dressers, Emery Wheel—**  
 Abrasive Material Co., Philadelphia, Pa.

**Dressers, Emery Wheel—**  
 American Emery Wheel Works, Providence, R. I.

**Dressers, Emery Wheel—**  
 Bay State Stamping Co., Worcester, Mass.

**Dressers, Emery Wheel—**  
 Bignall & Keeler Mfg. Co., Edwardsville, Ill.

**Dressers, Emery Wheel—**  
 Braunsdorf-Mueller Co., Elizabeth, N. J.

**Dressers, Emery Wheel—**  
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

**Dressers, Emery Wheel—**  
 Builders Iron Foundry, Providence, R. I.

**Dressers, Emery Wheel—**  
 George E. Calder, Lancaster, Pa.

**Dressers, Emery Wheel—**  
 Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

**Dressers, Emery Wheel—**  
 Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

**Dressers, Emery Wheel—**  
 Cutter, Wood & Stevens Co., Boston, Mass.

**Diamond Machine Co., Providence, R. I.**

**Diamond Saw & Stamping Works, Buffalo, N. Y.**

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Est. of John Dickinson, 64 Nassau St., New York.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Thos. L. Dickinson, 45 Vesey St., N. Y.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Globe Machine & Stamping Co., Cleveland, O.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Hollands Mfg. Co., Erie, Pa.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 New Britain Hardware Mfg. Co., New Britain, Ct.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Northampton Emery Wheel Co., Leeds, Mass.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Norton Emery Wheel Co., Worcester, Mass.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 J. L. Osgood, Buffalo, N. Y.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Standard Tool Co., Cleveland, O.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Steel Set Diamond Co., 36 Gold St., N. Y.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Sterling Emery Wheel Mfg. Co., Tiffin, O.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Vitrified Wheel Co., Westfield, Mass.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

**Diamond Saw & Stamping Works, Buffalo, N. Y.**  
 Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

**Dressing, Belt—**  
 (See Belt Dressing.)

**Dressing, Canvas, Oil—**  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

**Dressing, Rope—**  
 George B. Carpenter & Co., 1-5 5th Ave., Chicago, Ill.

**Dressing, Rope—**  
 Dodge Mfg. Co., Mishawaka, Ind.

**Dressing, Rope—**  
 C. W. Hunt Co., West New Brighton, N. Y.

**Dressing, Rope—**  
 Ironsides Co., Columbus, O.

**Dressing, Rope—**  
 A. Leschen & Sons Rope Co., St. Louis.

**Dressing, Rope—**  
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

**Dried Fruit Augers—**  
 (See Augers, Dried Fruit.)

**Drill and Clamp, Combined—**  
 (See Clamp and Drill, Combined.)

**Drill, Anvil and Vise—**  
 (See Vise, Drill and Anvil.)

**Drill Attachments, Vise—**  
 Prentiss Vise Co., 44 Barclay St., N. Y.

**Drill Cases, Chucks, &c.—**  
 (See Cases, Chucks, &c.)

**Drill Grinding Machines, Butt—**  
 (See Milling and Drilling Machines.)

**Drill Grinding Machines, Twist—**  
 (See Grinders, Drill.)

**Drilling and Tapping Machines—**  
 American Works Co., Cincinnati, O.

**Drilling and Tapping Machines—**  
 Baker Bros., Toledo, O.

**Drilling and Tapping Machines—**  
 Rickford Drill & Tool Co., Cincinnati, O.

**Drilling and Tapping Machines—**  
 Cincinnati Machine Tool Co., Cincinnati, O.

**Drilling and Tapping Machines—**  
 Foodick Machine Tool Co., Cincinnati, O.

**Drilling and Tapping Machines—**  
 Garvin Machine Co., Spring and Varick Sts., New York.

**Drilling and Tapping Machines—**  
 Gould & Eberhardt, Newark, N. J.

**Drilling and Tapping Machines—**  
 C. E. Jennings Co., 42 Murray St., N. Y.

**Drilling and Tapping Machines—**  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Drilling and Tapping Machines—**  
 Pratt & Whitney Co., Hartford, Ct.

**Drilling and Tapping Machines—**  
 Slotkin & Praglin, 210 Canal St., N. Y.

**Drilling and Tapping Machines—**  
 Stow Flexible Shaft Co., 28th and Callowhill Sts., Philadelphia, Pa.

**MERCHANTS**

Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39-41 So. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

J. R. Vandeyck Co., 8 Day St., New York.

**Drilling Machines—**

American Tool Works Co., Cincinnati, O.  
 Baker Bros., Toledo, O.  
 B. F. Barnes Co., Rockford, Ill.  
 W. F. & John Barnes Co., Rockford, Ill.  
 H. G. Barr, Worcester, Mass.  
 Baugh Machine Tool Co., Springfield, Mass.  
 Bickford Drill & Tool Co., Cincinnati, O.  
 P. Blaisdell & Co., Worcester, Mass.  
 Blake & Johnson, Waterbury, Ct.  
 Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.  
 Boynton & Plummer, Worcester, Mass.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Bullard Machine Tool Co., Bridgeport, Ct.  
 Carroll-Jamieson Machine Tool Co., Baltimore, O.  
 Champion Blower & Forge Co., Lancaster, Pa.  
 Cincinnati Machine Tool Co., Cincinnati, O.  
 Cleveland Punch & Shear Works Co., Cleveland, O.  
 T. H. Dallett & Co., York St. & Sedgley Ave., Philadelphia, Pa.  
 W. F. Davis Mach. Co., Rochester, N. Y.  
 Detrick & Harvey Machine Co., Baltimore, Md.  
 Drees Machine Tool Co., Cincinnati, O.  
 Erdle & Schenck, Rochester, N. Y.  
 Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.  
 Fenn-Sadler Machine Co., Hartford, Ct.  
 Foote, Burt & Co., Cleveland, O.  
 Fostick Machine Tool Co., Cincinnati, O.  
 Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 General Electric Co., Schenectady, N. Y.  
 Gould & Eberhardt, Newark, N. J.  
 Hannan & Finton, Springfield, Mass.  
 E. Harrington, Son & Co., Philadelphia.  
 Hisey-Wolf Machine Co., Cincinnati, O.  
 Hoefer Mfg. Co., Freeport, Ill.  
 J. J. McCabe, 14 Dey St., New York.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Mechanics Machine Co., Rockford, Ill.  
 Millers Falls Co., 23 Warren St., N. Y.  
 New Haven Mfg. Co., New Haven, Ct.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Patterson Tool & Supply Co., Dayton, O.  
 Pawling & Harnischfeger, Milwaukee, Wis.  
 Pratt & Whitney Co., Hartford, Ct.  
 A. D. Quint, Hartford, Ct.  
 F. E. Reed & Co., Worcester, Mass.  
 Francis Reed Co., Worcester, Mass.  
 Roversford Foundry & Machine Co., Roversford, Pa.  
 D. Saunders' Sons, Yonkers, N. Y.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 F. B. Shuster Co., New Haven, Ct.  
 Sibley & Ware, South Bend, Ind.  
 Silver Mfg. Co., Salem, O.  
 Dwight Slate Machine Co., Hartford, Ct.  
 Slottkin & Praglin, 210 Canal St., N. Y.  
 Standard Machinery Co., Providence, R. I.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
 Washburn Shops, Worcester, Mass.  
 Wells Bros. & Co., Greenfield, Mass.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.

**MERCHANTS.**

Geo. E. Affleck, 109 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 J. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Marshall & Huschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.  
 McDowell, Stocker & Co., 53 S. Canal St., Chicago, Ill.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 L. F. Seifert's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
 J. R. Vandeyck Co., 8 Dey St., New York.  
 William Ward, Pittsburgh, Pa.  
 Wickes Bros., Saginaw, Mich.

**Drilling Machines, Bicycle Hub—**

Fox Machine Co., Grand Rapids, Mich.  
 Pratt & Whitney Co., Hartford, Ct.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.

**Drilling Machines, Bicycle Rim—**

Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring and Varick Sts., New York.

**Drilling Machines, Connecting Rod—**

Baker Bros., Toledo, O.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Drilling Machines, Double Head Traverse—**

Baker Bros., Toledo, O.  
 Pratt & Whitney Co., Hartford, Ct.

**Drilling Machines, Gun Barrel—**

Diamond Machine Co., Providence, R. I.  
 Pratt & Whitney Co., Hartford, Ct.

**Drilling Machines, Spindle—**

P. Blaisdell & Co., Worcester, Mass.  
 Pratt & Whitney Co., Hartford, Ct.  
 F. E. Reed & Co., Worcester, Mass.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.

**Drilling Machines, Turret—**

A. D. Quint, Hartford, Ct.  
 Francis Reed Co., Worcester, Mass.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.

**Drilling Machines, Universal, Horizontal—**

Detrick & Harvey Machine Co., Baltimore, Md.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Drills—**

(See Taps and Drills.)

**Drills, Arch Bar—**

Foote, Burt & Co., Cleveland, O.

**Drills, Automatic—**

Foot, Burt & Co., Cleveland, O.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Gould & Eberhardt, Newark, N. J.  
 Millers Falls Co., 28 Warren St., N. Y.  
 North Bros. Mfg. Co., Philadelphia, Pa.  
 Francis Reed Co., Worcester, Mass.  
 Dwight Slate Machine Co., Hartford, Ct.  
 Slotkin & Praglin, 210 Canal St., N. Y.

**Drills, Bench—**

H. G. Barr, Worcester, Mass.  
 Boynton & Plummer, Worcester, Mass.  
 Foot, Burt & Co., Cleveland, O.  
 Garvin Machine Co., Spring & Varick Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.  
 Millers Falls Co., 28 Warren St., N. Y.  
 Patterson Tool & Supply Co., Dayton, O.  
 Pratt & Whitney Co., Hartford, Ct.  
 Francis Reed Co., Worcester, Mass.  
 Sigourney Tool Co., Hartford, Ct.  
 Dwight Slate Machine Co., Hartford, Ct.  
 Slotkin & Praglin, 210 Canal St., N. Y.  
 Standard Machinery Co., Providence, R. I.

**Drills, Bicycle—**

Baker Bros., Toledo, O.  
 W. F. & John Barnes Co., Rockford, Ill.  
 Bickford Drill & Tool Co., Cincinnati, O.  
 P. Blaisdell & Co., Worcester, Mass.  
 Fosdick Machine Tool Co., Cincinnati, O.  
 Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring & Varick Sts., New York.

Pratt & Whitney Co., Hartford, Ct.  
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

**Drills, Bit Stock—**

Cleveland Twist Drill Co., Cleveland, O.  
 Etna Mfg. Co., 253 Broadway, New York.  
 Forest City Bit & Tool Co., Rockford, Ill.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.

**MERCHANTS.**

Brown-Wales Co., Boston, Mass.

**Drills, Blacksmiths'—**

Boynton & Plummer, Worcester, Mass.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Champion Blower & Forge Co., Lancaster, Pa.

Etna Mfg. Co., 253 Broadway, New York.  
 Fairbanks Co., 416 Broome St., New York.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plouger & Henger Mfg. Co., St. Louis, Mo.  
 Francis Reed Co., Worcester, Mass.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Silver Mfg. Co., Salem, O.  
 Wells Bros. & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Drills, Botter Shell—**

American Tool Works Co., Cincinnati, O.  
 Thos. H. Dallett & Co., York St. & Sedgely Ave., Philadelphia, Pa.

Detrick & Harvey Machine Co., Baltimore, Md.

Foot, Burt & Co., Cleveland, O.  
 Fosdick Machine Tool Co., Cincinnati, O.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**MERCHANTS.**

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Drills, Breast—**

Boynton & Plummer, Worcester, Mass.  
 Fairbanks Co., 416 Broome St., New York.  
 John S. Fray & Co., Bridgeport, Ct.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Hisy-Wolf Machine Co., Cincinnati, O.  
 Millers Falls Co., 28 Warren St., N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

**Drills, Brick and Cement—**

Braunsdorf-Mueller Co., Elizabeth, N. J.  
 Steward & Romaine Mfg. Co., Philadelphia, Pa.

**Drills, Clamp—**

Boynton & Plummer, Worcester, Mass.  
 Francis Reed Co., Worcester, Mass.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

**Drills, Combination Center—**

Morse Twist Drill & Machine Co., New Bedford, Mass.

J. T. Slocumb & Co., Providence, R. I.

**Drills, Combined Seed and****Fertilizer—**

Bateman Mfg. Co., Grenloch, N. J.  
 P. Blaisdell & Co., Boston, Mass.

**Plow—**

Cutaway Harrow Co., Higganum, Ct.

**Drills, Core Rock—**

Rand Drill Co., 128 Broadway, New York.

**Drills, Corn—**

(See Planters and Drills, Corn.)

**Drills, Cotter—**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**Drills, Diamond Rock—**

Rand Drill Co., 128 Broadway, New York.

**Drills, Electric Driven—**

P. Blaisdell & Co., Boston, Mass.

Thos. H. Dallett & Co., York St. & Sedgely Ave., Philadelphia, Pa.

Fosdick Machine Tool Co., Cincinnati, O.

Hisy-Wolf Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.

**Drills, Flat—**

Billings & Spencer Co., Hartford, Ct.

**Drills, Fluted—**

Cleveland Twist Drill Co., Cleveland, O.

Etna Mfg. Co., 253 Broadway, New York.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Standard Tool Co., Cleveland, O.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Drills, Foot Power—**

Slotkin & Praglin, 210 Canal St., N. Y.

Union Mfg. & Specialty Co., Buffalo, N. Y.

**Drills, Geared—**

H. G. Barr, Worcester, Mass.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Charles Parker Co., Meriden, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Drills, Geometric—**

Geometric Drill Co., New Haven, Ct.

**Drills, Glass—**

Est. of John Dickinson, 64 Nassau St., New York.

**Drills, Hand—**

Boynton & Plummer, Worcester, Mass.  
Thos. H. Dallett & Co., York St. & Sedgely Ave., Philadelphia, Pa.  
Fenn-Sadler Machine Co., Hartford, Ct.  
John S. Fray & Co., Bridgeport, Ct.  
Goodell-Pratt Co., Greenfield, Mass.  
Hisey-Wolf Machine Co., Cincinnati, O.  
C. E. Jennings Co., 42 Murray St., N. Y.  
Keystone Mfg. Co., Buffalo, N. Y.  
Millers Falls Co., 23 Warren St., N. Y.  
North Bros. Mfg. Co., American St. and Lehigh Ave., Philadelphia, Pa.  
J. E. Porter Co., Ottawa, Ill.  
Francis Reed Co., Worcester, Mass.  
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
Tower & Lyon Co., 95 Chambers St., New York.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

**Drills, Hollow—**

Cleveland Twist Drill Co., Cleveland, O.  
Morse Twist Drill & Machine Co., New Bedford, Mass.

**Drills, Horizontal—**

B. F. Barnes Co., Rockford, Ill.  
P. Blaisdell & Co., Worcester, Mass.  
Boynton & Plummer, Worcester, Mass.  
Detrick & Harvey Machine Co., Baltimore, Md.  
Fosdick Machine Tool Co., Cincinnati, O.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Pawling & Harnischfeger, Milwaukee, Wis.

**Drills, Locomotive Frame—**

Foot, Burt & Co., Cleveland, O.

**Drills, Locomotive Mud Ring and Plug Steel—**

Foot, Burt & Co., Cleveland, O.

**Drills, Marble—**

F. R. Patch Mfg. Co., Rutland, Vt.

**Drills, Multiple—**

American Tool Works Co., Cincinnati, O.

Baker Bros., Toledo, O.

B. F. Barnes Co., Rockford, Ill.

W. F. & John Barnes Co., Rockford, Ill.

H. G. Barr, Worcester, Mass.

Baush Machine Tool Co., Springfield, Mass.

Rickford Drill & Tool Co., Cincinnati, O.

P. Blaisdell & Co., Worcester, Mass.

Cleveland Punch & Shear Works, Cleveland, O.

Fenn-Sadler Machine Co., Hartford, Ct.

Foot, Burt & Co., Cleveland, O.

Fosdick Machine Tool Co., Cincinnati, O.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts., New York.

Gould & Eberhardt, Newark, N. J.

E. Harrington, Son & Co., Philadelphia, Pa.

Hofer Mfg. Co., Freeport, Ill.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

Francis Reed Co., Worcester, Mass.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

F. B. Shuster Co., Hartford, Ct.

Sigourney Tool Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.

**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

Wickes Bros., Saginaw, Mich.

**Drills, Oil—**

Morse Twist Drill & Machine Co., New Bedford, Mass.

**Drills, Oil Tube—**

Standard Tool Co., Cleveland, O.

**Drill Sockets—**

(See Sockets, Drill.)

**Drills, Pneumatic—**

Helwig Mfg. Co., St. Paul, Minn.

Ingersoll-Sargeant Drill Co., 26 Cortlandt St., New York.

Philadelphia Pneumatic Tool Co., 1038 Ridge Ave., Philadelphia, Pa.

Band Drill Co., 123 Broadway, New York.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

**MERCHANTS.**

S. Obermayer Co., Cincinnati, O.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Drills, Portable—**

Thos. H. Dallett & Co., York St. & Sedgely Ave., Philadelphia, Pa.

Helwig Mfg. Co., St. Paul, Minn.

Hisey-Wolf Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Philadelphia Pneumatic Tool Co., 1038 Ridge Ave., Philadelphia, Pa.

Francis Reed Co., Worcester, Mass.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.

Brown-Wales Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

J. R. Vandeyck Co., 8 Dey St., New York.

**Drills, Post—**

Boynton & Plummer, Worcester, Mass.

Cleveland Punch & Shear Works Co., Cleveland, O.

E. Harrington, Son & Co., Philadelphia, Pa.

Francis Reed Co., Worcester, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Drills, Radial—**

American Tool Works Co., Cincinnati, O.

Baush Machine Tool Co., Springfield, Mass.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Cleveland Punch & Shear Works Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore, Md.

Dresses Machine Tool Co., Cincinnati, O.

Fosdick Machine Tool Co., Cincinnati, O.

E. Harrington, Son & Co., Philadelphia, Pa.

Manning, Maxwell & Moore, 85 Liberty St., New York.

J. J. McCabe, 14 Dey St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

## MERCHANTS.

Geo. E. Affleck, 109 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 J. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.  
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
 J. R. Vandevk Co., 8 Dey St., New York.  
 William Ward, Pittsburgh, Pa.  
 Wickes Bros., Saginaw, Mich.  
 C. C. Wormer Machinery Co., Detroit, Mich.

**Drills, Rail—**

Roynton & Plummer, Worcester, Mass.  
 Epsen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.  
 Foote, Burt & Co., Cleveland, O.  
 Millers Falls Co., 28 Warren St., N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Francis Reed Co., Worcester, Mass.  
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
 Sheffield Car Co., Three Rivers, Mich.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
 Stow Mfg. Co., Binghamton, N. Y.

**Drills, Ratchet—**

Signal & Keeler Mfg. Co., Edwardsville, Ill.  
 Billings & Spencer Co., Hartford, Ct.  
 Braunsdorf-Mueller Co., Elizabeth, N. J.  
 Curtis & Curtis Co., Bridgeport, Ct.  
 Etna Mfg. Co., 233 Broadway, New York.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Keystone Mfg. Co., Buffalo, N. Y.  
 Millers Falls Co., 28 Warren St., N. Y.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.  
 Charles Parker Co., Meriden, Ct.  
 J. E. Porter Co., Ottawa, Ill.  
 Pratt & Whitney Co., Hartford, Ct.

**Drills, Rock—**

Diamond Drill Machine Co., Birdsbore, Pa.  
 Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
 Jeffrey Mfg. Co., Columbus, O.  
 May & Spaulding, Atlanta, Ga.  
 McKiernan Drill Co., 120 Liberty St., New York.  
 Rand Drill Co., 128 Broadway, New York.  
 John M. Rogers Bosh, Gauge & Drill Works, Gloucester City, N. J.  
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.  
 Wickes Bros., Saginaw, Mich.

## MERCHANTS.

McDowell & Co., Pittsburgh, Pa.

**Drills, Seed, Hand—**  
 Bateman Mfg. Co., Greenloch, N. J.

**Drills, Sensitive—**  
 American Tool Works Co., Cincinnati, O.  
 E. F. Barnes Co., Rockford, Ill.  
 W. F. & John Barnes Co., Rockford, Ill.  
 W. P. Davis Machine Co., Rochester, N. Y.

Foote, Burt & Co., Cleveland, O.  
 Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring & Varick Sts., New York.  
 E. Harrington, Son & Co., Philadelphia, Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Patterson Tool & Supply Co., Dayton, O.  
 Pratt & Whitney Co., Hartford, Ct.  
 Francis Reed Co., Worcester, Mass.  
 Sigourney Tool Co., Hartford, Ct.  
 Dwight Slate Machine Co., Hartford, Ct.  
 Slotkin & Praglin, 210 Canal St., N. Y.  
 Standard Machinery Co., Providence, R. I.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
 Washburn Shops, Worcester, Mass.

## MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 J. R. Vandevk Co., 8 Dey St., New York.

**Drills, Stone—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

**Drills, Suspension—**

Bickford Drill & Tool Co., Cincinnati, O.  
 Cleveland Punch & Shear Works Co., Cleveland, O.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

**Drills, Tap—**

Butterfield & Co., Derby Line, Vt.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.

**Drills, Tire—**

Pleuger & Henger Mfg. Co., St. Louis, Mo.

**Drills, Turret—**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

A. D. Quint, Hartford, Ct.

**Drills, Twist—**

Cincinnati Screw & Tap Co., Cincinnati, O.  
 Cleveland Twist Drill Co., Cleveland, O.  
 Detroit Twist Drill Co., Detroit, Mich.  
 Etna Mfg. Co., 233 Broadway, New York.  
 Goodell-Pratt Co., Greenfield, Mass.  
 H. H. Mayhew Co., Shelburne Falls, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

J. T. Slocumb & Co., Providence, R. I.

Standard Tool Co., Cleveland, O.

Whitman & Barnes Mfg. Co., Akron, O.

**Drills, Universal—**

American Tool Works Co., Cincinnati, O.  
 Baugh Machine Tool Co., Springfield, Mass.

Bickford Drill & Tool Co., Cincinnati, O.  
 Detrick & Harvey Machine Co., Baltimore, Md.

Dresses Machine Tool Co., Cincinnati, O.

Fosdick Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

**Drills, Universally Adjustable—**

Foot, Burt & Co., Cleveland, O.

**Drills, Vertical—**

American Tool Works Co., Cincinnati, O.

Baker Bros., Toledo, O.

B. F. Barnes Co., Rockford, Ill.

H. G. Barr, Worcester, Mass.

P. Blaisdell & Co., Worcester, Mass.

Boynston & Plummer, Worcester, Mass.

Cincinnati Machine Tool Co., Cincinnati, O.

W. P. Davis Machine Co., Rochester, N. Y.

Foot, Burt & Co., Cleveland, O.

Fosdick Machine Tool Co., Cincinnati, O.

Fox Machine Co., Grand Rapids, Mich.

Gould & Eberhardt, Newark, N. J.

Hoefer Mfg. Co., Freeport, Ill.

J. J. McCabe, 14 Dey St., New York.

Mechanics Machine Co., Rockford, Ill.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Patterson Tool & Supply Co., Dayton, O.

Francis Reed Co., Worcester, Mass.

Washburn Shops, Worcester, Mass.

**MERCHANTS**

Fairbanks Co., 416 Broome St., New York.

J. B. Vanduyck Co., 8 Dey St., New York.

C. C. Wormer Machinery Co., Detroit, Mich.

**Drills, Wheel Car—**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Drills, Wood Boring Braces—**

Cleveland Twist Drill Co., Cleveland, O.

Detroit Twist Drill Co., Detroit, Mich.

Forest City Bit & Tool Co., Rockford, Ill.

H. H. Mayhew Co., Shelburne Falls, Mass.

Standard Tool Co., Cleveland, O.

**Drills, Wood Boring Machine—**

Detroit Twist Drill Co., Detroit, Mich.

Forest City Bit & Tool Co., Rockford, Ill.

Hisey-Wolf Machine Co., Cincinnati, O.

Springfield Machine Screw Co., Springfield, Mass.

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

**Drinking Cups—**

(See Dippers.)

**Drinking Fountains—**

(See Fountains, Drinking.)

**Drink Shakers—**

(See Shakers, Drink.)

**Dripping Pans—**

(See Pans, Dripping.)

**Drive Hooks, Punches, Screws—**

(See Hooks, Punches, Screws.)

**Drivers, Coopers—**

L. & I. J. White, Buffalo, N. Y.

**Drivers, Pile—**

Thos. Carlin's Sons, Allegheny, Pa.

Industrial Works, Bay City, Mich.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Vulcan Iron Works, 59 Milwaukee Ave.,

Chicago, Ill.

**Drivers, Screw—**

M. J. Bartlett & Son, 196 S. Clark St.,

Chicago, Ill.

Bemis & Call Hardware & Tool Co.,

Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.

R. H. Brown & Co., New Haven, Ct.

Charles Buck, Millbury, Mass.

Buck Bros., Millbury, Mass.

Henry Disston & Sons, Philadelphia, Pa.

Federal Mfg. Co., Cleveland, O.

Goodell-Pratt Co., Greenfield, Mass.

Hurwood Mfg. Co., Bridgeport, Ct.

Kendrick & Davis, Lebanon, N. Y.

O. J. Kimball Co., Bennington, N. H.

H. H. Mayhew Co., Shelburne Falls,

Mass.

Millers Falls Co., 28 Warren St., N. Y.

New England Specialty Co., North East-

on, Mass.

North Bros. Mfg. Co., American St. and

Lehigh Ave., Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Russell & Erwin Mfg. Co., 43-47 Chambers

St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

Smith & Hemenway Co., 25 Broadway,

New York.

Snell Mfg. Co., Fiskdale, Mass.

Stanley Rule & Level Co., New Brit-

ain, Ct.

L. S. Starrett Co., Athol, Mass.

Tower & Lyon Co., 95 Chambers St.,

New York.

Tuck Mfg. Co., Brockton, Mass.

A. C. Williams, Ravenna, O.

**Drivers, Screw and Holder—**

Tower & Lyon Co., 95 Chambers St.,

New York.

**Drivers, Screw, Automatic—**

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., Philadelphia, Pa.

**Drivers, Screw, Leather**

**Handled—**

Union Mfg. & Specialty Co., Buffalo,

N. Y.

**Drivers, Screw, Magazine—**

Billings & Spencer Co., Hartford, Ct.

**Drivers, Screw, Ratchet—**

Geo. E. Gay, Augusta, Me.

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., Philadelphia, Pa.

Stow Flexible Shaft Co., 26th & Callow-

hill Sts., Philadelphia, Pa.

**Drivers, Screw, Spiral—**

C. E. Jennings Co., 42 Murray St., N. Y.

Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., Philadelphia, Pa.

**Drivers, Staple—**

I. S. Spencer's Sons, Guilford, Ct.

**Drivers, Steam Pile—**

Vulcan Iron Works, 59 Milwaukee Ave.,

Chicago, Ill.

**Drop Lights, Gas—**

(See Gas Portables.)

**Drops and Pins, Shutter—**

Sargent & Co., 151 Leonard St., N. Y.

**Drug Mills—**

(See Mills, Drug.)



**Drugs—**

(See Chemicals and Drugs.)

**Drums, Rotanizing—**

Sidney Shepard &amp; Co., Buffalo, N. Y.

**Drums, Friction Winding—**Eastern Machinery Co., New Haven, Ct.  
Foote Engineering & Machine Co., Baltimore, Md.

Weber Gas &amp; Gasoline Engine Co., Kansas City, Mo.

**MERCHANTS.**

Carlin Machinery &amp; Supply Co., Allegheny, Pa.

**Drums, Mud—**

L. O. Koven &amp; Bro., 50 Cliff St., N. Y.

**Drums, Oil, Steel—**Cleveland Wire Spring Co., Cleveland, O.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.**Dry Docks—**

Newport News Ship Building &amp; Dry Dock Co., Newport News, Va.

**Dryers, Brick—**

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

**Dryers, Cloth and Cotton—**

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

B. F. Sturtevant Co., Boston, Mass.

**Dryers, Coal—**

Fairfield Lawn Swing Co., Brunswick, Me.

Bill Dryer Co., Worcester, Mass.

**Dryers, Corn—**

C. O. Bartlett &amp; Snow Co., Cleveland, O.

**Dryers, Grain—**

Case Mfg. Co., Columbus, O.

American Blower Co., Detroit, Mich.

C. O. Bartlett &amp; Snow Co., Cleveland, O.

Buffalo Forge Co., Buffalo, N. Y.

Case Mfg. Co., Columbus, O.

B. F. Sturtevant Co., Boston, Mass.

**Dryers, Leather—**

Buffalo Forge Co., Buffalo, N. Y.

**Dryers, Sand—**

Velte Foundry &amp; Machine Co., Pittsburgh, Pa.

**Dryers, Soapstone, Boot—**

Pike Mfg. Co., Pike, N. H.

**Drying Out Machines, Sheet Metal—**

Waterbury Machine Co., Waterbury, Ct.

**Drying Pans—**

(See Pans, Drying.)

**Dry Kiln Appurtenances—**

American Blower Co., Detroit, Mich.

Wm. Bayley &amp; Sons Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Howard &amp; Morse, 45 Fulton St., N. Y.

Soule Steam Feed Works, Meridian, Miss.

B. F. Sturtevant Co., Boston, Mass.

**Dry Measures—**

(See Measures.)

**D's, Malleable—**

Avery Stamping Co., Cleveland, O.

**Duck, Cotton—**

Geo. B. Carpenter &amp; Co., 1-5 Fifth Ave., Chicago, Ill.

**Dumb Bells, Waiters—**

(See Bells, Waiters.)

**Dumb Waiter Pulleys—**

(See Pulleys.)

**Dumping Buckets, Self—**

(See Buckets, Self Dumping.)

**Dust Collectors—**

(See Collectors, Dust.)

**Dust Collectors, Pans—**

(See Collectors, Pans.)

**Dusters—**

(See Brushes, Whitewash, Horse, &amp;c.)

**Dusters, Turkey, Counter, &c.—**

Osborn Mfg. Co., Cleveland, O.

**Dyeing Machines—**

Geo. V. Cresson Co., 18th St. &amp; Allegheny Ave., Philadelphia, Pa.

**Dynamite—**

King Powder Co., Cincinnati, O.

**Dynamometers—**

Manning, Maxwell &amp; Moore, 85 Liberty St., New York.

**Dynos—**

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Thos. H. Dallett &amp; Co., York St. &amp; Sedgely Ave., Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.

Gilmore Electric Co., So. Boston, Mass.

Holtzer-Cabot Electric Co., Boston, Mass.

Jeffrey Mfg. Co., Columbus, O.

Northern Electrical Mfg. Co., Madison, Wis.

Robbins &amp; Myers Co., Springfield, O.

Sheffield Car Co., Three Rivers, Mich.

Sprague Electric Co., 527-531 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric &amp; Mfg. Co., Pittsburgh, Pa.

**MERCHANTS.**

Charles Behlen, 72 Trinity Place, N. Y.

Case Mfg. Co., Columbus, O.

John W. Cole, Providence, R. I.

Charles E. Dustin Co., 11 Broadway, New York.

McDowell &amp; Co., Pittsburgh, Pa.

Rossiter, MacGovern &amp; Co., Inc., 141 Broadway, New York.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Stewart Electrical Co., Cincinnati, O.

Thompson, Son &amp; Co., 114 Liberty St., New York.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Walsh's Sons &amp; Co., Newark, N. J.

Wickes Bros., Saginaw, Mich.

**Dynos, Electro Plating—**

Cutter, Wood &amp; Stevens Co., Boston, Mass.

Hanson &amp; Van Winkle Co., Newark, N. J.

Holtzer-Cabot Electric Co., Boston, Mass.

Zucker &amp; Levett &amp; Loeb Co., 528-530 West 25th St., New York.

**Ears, Brass, Fall—**

Bridgeport Brass Co., Bridgeport, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Ears, Fall and Tub—**

E. H. Titchener &amp; Co., Binghamton, N. Y.

**Easels, Wire—**

(See Household Articles, Wire.)

**Eave Trough Hangers—**

(See Hangers, Eave Trough.)

**Eave Trough Machinery—**

Canton Foundry &amp; Machine Co., Canton, O.

**Eave Troughs and Gutters—**

American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
Berger Mfg. Co., Canton, O.  
Canton Foundry & Machine Co., Canton, O.  
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.  
Clark, Quisen & Morse, Peoria, Ill.  
Edwards Mfg. Co., Cincinnati, O.  
Garry Iron & Steel Co., Cleveland, O.  
Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.  
National Sheet Metal Roofing Co., Jersey City, N. J.

**Economizers, Fuel—**

Bromell, Schmidt & Steacy Co., York, Pa.

Green Fuel Economizer Co., Matteawan, N. Y.

B. F. Sturtevant Co., Boston, Mass.

**Edgers, Tur—**

American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Fort Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Edges, Straight—**

Athol Machine Co., Athol, Mass.  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Henry Disston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., New York.

Pratt & Whitney Co., Hartford, Ct.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Simonds Mfg. Co., Fitchburg, Mass.  
L. S. Starrett Co., Athol, Mass.

**Edging Machines—**

Blake & Johnson, Waterbury, Ct.  
Filer & Stowell Co., Milwaukee, Wis.  
Garvin Machine Co., Spring and Varick Sts., New York.  
Niagara Machine & Tool Works, Buffalo, N. Y.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Southern Engine & Boiler Works, Jackson, Tenn.

Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

**Egg Beaters, Poachers—**

(See Beaters, Poachers.)

**Egg Boilers, Wire—**

(See Kitchen Articles, Wire.)

**Egg Crates, Openers, Separators—**

(See Crates, Openers, Separators.)

**S and S Hooks—**

(See Hooks, S and S.)

**Ejectors—**

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Manning, Maxwell & Moore, 85 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

McNab and Harlin Mfg. Co., 56 John St., New York.

**MERCHANTS.**

Nazareth Foundry & Machine Co., Nazareth, Pa.

**Elbow Catches—**

(See Catches, Elbow.)

**Elbows and Shoes. Con-**

**ductor—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Clark, Quisen & Morse, Peoria, Ill.

Garry Iron & Steel Co., Cleveland, O.

Fred. J. Meyers Mfg. Co., Hamilton, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

Waite, Ranlet & Co., Boston, Mass.

**Elbows, Pipe, Conductor—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Garry Iron & Steel Co., Cleveland, O.

Sidney Shepard & Co., Buffalo, N. Y.

**Elbows, Stove Pipe—**

Berger Mfg. Co., Canton, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Edwards Mfg. Co., Cincinnati, O.

S. M. Howes Co., Boston, Mass.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Election Booths—**

(See Buildings, Election Booth.)

**Electrical Alarms—**

(See Alarms, Electrical.)

**Electrical Repairs—**

Stewart Electrical Co., Cincinnati, O.

**Electrical Trolley Materials—**

(See Trolley Materials, Electrical.)

**Electric Batteries, Bells, &c.—**

(See Batteries, Bells, &c.)

**Electric Bells and Supplies—**

W. R. Ostrander & Co., 22 Dey St., N. Y.

**Electric Fixtures—**

(See Gas and Electric Fixtures.)

**Electrician Bits—**

(See Bits, Bell Hangers' and Electricians'.)

**Electric Insulating Com-**

**pounds—**

Standard Paint Co., 100 William St., New York.

**Electric Light Fittings**

(Socket Bushings, Cord

Adjusters, Socket Hooks,

Lamp Attachments for

Gas Fixtures.)

W. R. Ostrander & Co., 22 Dey St., N. Y.

**Electric Light Guards—**

(See Guards, Electric Light.)

**Electric Storage Batteries—**

(See Batteries, Electric Storage.)

**Electric Woods—**

Union Hardware Co., Torrington, Ct.

**Electro Galvanizing—**

Ludlow-Saylor Wire Co., St. Louis, Mo.

**Electro Plating Brushes.**

**Dynos—**

(See Brushes, Dynamos.)

**Electro Plating Supplies—**

Cutter, Wood & Stevens Co., Boston, Mass.

Hanson & Van Winkle Co., Newark, N. J.

Zuckert & Lovett & Loeb Co., 526-530 West

25th St., New York.

**Electrotype Metal—**

Theo. Hertz Metal Co., St. Louis, Mo.

**Electrotype Presses—**

(See Presses, Electrotype.)

**Electrotyping—**

A. Mugford, Hartford, Ct.

St. Louis Electrotype Foundry, St. Louis.

**Elevating Machinery—**

Allis-Chalmers Co., Home Insurance

Bldg., Chicago, Ill.

C. O. Bartlett &amp; Snow Co., Cleveland, O.

Borden &amp; Selleck Co., 48 Lake St., Chi-

cago, Ill.

Brown Hoisting Machinery Co., Inc., Cleve-

land, O.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell &amp; Son Co., Western Ave.

and 17th St., Chicago, Ill.

Eastern Machinery Co., New Haven, Ct.

C. W. Hunt Co., West New Brighton,

N. Y.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen &amp; Sons Rope Co., St. Louis,

Mo.

Link-Belt Engineering Co., Nicetown,

Philadelphia, Pa.

Minneapolis Steel &amp; Machinery Co., Min-

neapolis, Minn.

New Jersey Foundry &amp; Machine Co., 9-15

Murray St., New York.

Robins Conveying Belt Co., 17-22 Park

Bow, New York.

J. G. Speidel, Reading, Pa.

Storm Mfg. Co., Newark, N. J.

Tyrone Foundry &amp; Machine Co., Tyrone,

Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Weber Gas &amp; Gasoline Engine Co., Kan-

sas City, Mo.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wolf Co., 523 N. 23d St., Philadelphia, Pa.

MERCHANTS.

Browning Engineering Co., Cleveland, O.

**Elevator Bolts, Buckets,****&c.—**

(See Bolts, Buckets, &amp;c.)

**Elevator Bucket Pumps—**

(See Pumps, Elevator Bucket and Pur-

ifying Pumps.)

**Elevator Buckets and****Cups—**

(See Buckets and Cups, Elevator.)

**Elevator Counter Balance****Weights—**

(See Weights.)

**Elevator Enclosures—**

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby &amp; Sons, 233-235 Arch St.,

Philadelphia, Pa.

Donovan Wire &amp; Iron Co., Toledo, O.

Estey Wire Works Co., 59 Fulton St., New

York.

Glen Mfg. Co., Ellwood City, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Murdock Corporation, Boston, Mass.

National Iron Wire Co., Cleveland, O.

Stewart Iron Works, Cincinnati, O.

W. S. Tyler Co., Cleveland, O.

Van Dorn Iron Works, Cleveland, O.

Webster &amp; Perks Tool Co., Springfield, O.

Wright Wire Co., Worcester, Mass.

**Elevators, Automatic Bar-****rel—**

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell &amp; Son Co., Western Ave.

and 17th St., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,

Philadelphia, Pa.

Charles Mundt &amp; Sons, 441-447 Pearl St.,

New York.

New Jersey Foundry &amp; Machine Co., 9-15

Murray St., New York.

Warsaw Elevator Co., Warsaw, N. Y.

**Elevators, Belt—**

Allis-Chalmers Co., Home Insurance

Bldg., Chicago, Ill.

H. W. Caldwell &amp; Son Co., Western Ave.

and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Geo. V. Cresson Co., 18th St and Alle-

gheny Ave., Philadelphia, Pa.

Eastern Machinery Co., New Haven, Ct.

Eaton &amp; Prince Co., 70-76 Michigan St.,

Chicago, Ill.

Energy Elevator Co., 411 Cherry St.,

Philadelphia, Pa.

Franklin Machine Works, St. Paul, Minn.

Haven Elevator Co., Cincinnati, O.

Howard Iron Works, Buffalo, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Minneapolis Steel &amp; Machinery Co., Min-

neapolis, Minn.

Morse, Williams &amp; Co., Philadelphia, Pa.

New Jersey Foundry &amp; Machine Co., 9-15

Murray St., New York.

Northern Engineering Works, Detroit,

Mich.

Salem Elevator Works, Salem, Mass.

J. G. Speidel, Reading, Pa.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

MERCHANTS.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

**Elevators, Cotton—**

B. F. Sturtevant Co., Boston, Mass.

**Elevators, Electric—**

Eaton &amp; Prince Co., 70-76 Michigan St.,

Chicago, Ill.

Franklin Machine Works, St. Paul, Minn.

Haven Elevator Co., Cincinnati, O.

Howard Iron Works, Buffalo, N. Y.

Morse, Williams &amp; Co., Philadelphia, Pa.

New Jersey Foundry &amp; Machine Co., 9-15

Murray St., New York.

Northern Engineering Works, Detroit,

Mich.

Salem Elevator Works, Salem, Mass.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

**Elevators, Ensilage Cutter—**

Silver Mfg. Co., Salem, O.

**Elevators, Foundry—**

S. Obermayer Co., Cincinnati, O.

Whiting Foundry Equipment Co., Harvey,

Ill.

**Elevators, Freight—**

Eastern Machinery Co., New Haven, Ct.

Eaton &amp; Prince Co., 70-76 Michigan St.,

Chicago, Ill.

Energy Elevator Co., 411 Cherry St.,

Philadelphia, Pa.

Haven Elevator Co., Cincinnati, O.

Howard Iron Works, Buffalo, N. Y.

Lane &amp; Bodley Co., Cincinnati, O.

Morse, Williams &amp; Co., West End Trust

Bldg., Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Northern Engineering Works, Detroit,  
Mich.

Salem Elevator Works, Salem, Mass.  
Storm Mfg. Co., Newark, N. J.  
Warner Elevator Mfg. Co., Cincinnati, O.  
Warsaw Elevator Co., Warsaw, N. Y.

**Elevators, Grain—**

H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.  
Case Mfg. Co., Columbus, O.  
Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

Poole Engineering & Machine Co., Balti-  
more, Md.  
Riter-Conley Mfg. Co., Pittsburgh, Pa.

**Elevators, Hand Power—**

Bethlehem Foundry & Machine Co., South  
Bethlehem, Pa.  
Blount & Lovell, Boston, Mass.

Eaton & Prince Co., 70-76 Michigan St.,  
Chicago, Ill.  
Energy Elevator Co., 408 Cherry St.,  
Philadelphia, Pa.

Franklin Machine Works, St. Paul, Minn.  
E. Harrington, Son & Co., Philadelphia.  
Haven Elevator Co., Cincinnati, O.

Howard Iron Works, Buffalo, N. Y.  
Morse, Williams & Co., Philadelphia, Pa.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.

Salem Elevator Works, Salem, Mass.  
J. G. Spindel, Reading, Pa.  
Storm Mfg. Co., Newark, N. J.  
Warner Elevator Mfg. Co., Cincinnati, O.  
Warsaw Elevator Co., Warsaw, N. Y.

**Elevators, Hydraulic—**

Eaton & Prince Co., 70-76 Michigan St.,  
Chicago, Ill.  
Haven Elevator Co., Cincinnati, O.  
Howard Iron Works, Buffalo, N. Y.  
Morse, Williams & Co., Philadelphia, Pa.  
Warner Elevator Mfg. Co., Cincinnati, O.

**Elevator Slides, Shapes**

for—  
Finished Steel Co., Youngstown, O.

**Elevators, Passenger—**

Eaton & Prince Co., 70-76 Michigan St.,  
Chicago, Ill.

Haven Elevator Co., Cincinnati, O.  
Howard Iron Works, Buffalo, N. Y.  
Morse, Williams & Co., Philadelphia, Pa.  
National Iron & Wire Co., Cleveland, O.  
Salem Elevator Works, Salem, Mass.  
Storm Mfg. Co., Newark, N. J.  
Warner Elevator Mfg. Co., Cincinnati, O.  
Warsaw Elevator Co., Warsaw, N. Y.

**Elevators Sidewalk—**

(See Hoists, Sidewalk.)

**Elevators, Steam - Hy-  
draulic—**

Eaton & Prince Co., 70-76 Michigan St.,  
Chicago, Ill.

Craig Ridgway & Son Co., Coatesville, Pa.  
**Elevators, Vehicle—**  
Energy Elevator Co., 411 Cherry St.,  
Philadelphia, Pa.

Salem Elevator Works, Salem, Mass.  
Warsaw Elevator Co., Warsaw, N. Y.

**Elevators, Water—**

Buhl Malleable Co., Detroit, Mich.  
H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.  
Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,  
Philadelphia, Pa.  
Warsaw Elevator Co., Warsaw, N. Y.

**Embossed Brass—**

(See Brass.)

Crowe Metal Mfg. Co., 71 W. Jackson  
Blvd., Chicago, Ill.

**Embossing Dies—**

(See Stamps and Dies, Steel.)

**Embossing Punches—**

(See Punches, Embossing.)

**Emery—**

Abrasive Material Co., Philadelphia, Pa.  
American Emery Wheel Works, Providence,  
R. I.

George G. Blackwell, Sons & Co., The Al-  
bany, Liverpool, England.  
Bridgeport Safety Emery Wheel Co.,  
Bridgeport, Ct.

Chicago Wheel & Mfg. Co., 39-45 W.  
Randolph St., Chicago, Ill.  
Northampton Emery Wheel Co., Leeds,  
Mass.

Norton Emery Wheel Co., Worcester,  
Mass.

Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Vitriified Wheel Co., Westfield, Mass.

**Emery Bricks—**

American Emery Wheel Works, Providence,  
R. I.

**Emery Cloth—**

(See Cloth.)

**Emery Grinding Pans,  
Stones, &c.—**

(See Pans, Stones, &c.)

**Emery Rubs for Foundry  
Use—**

Abrasive Material Co., Philadelphia, Pa.  
American Emery Wheel Works, Providence,  
R. I.

Bridgeport Safety Emery Wheel Co.,  
Bridgeport, Ct.  
Chicago Wheel & Mfg. Co., 39-45 W. Ran-  
dolph St., Chicago, Ill.

Norton Emery Wheel Co., Worcester,  
Mass.

Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Vitriified Wheel Co., Westfield, Mass.

**Employment Bureau, En-  
gineering—**

Engineering Agency, Monadnock Block,  
Chicago, Ill.

**Enameling—**

Avery Stamping Co., Cleveland, O.  
John W. Clark, Albany, N. Y.  
Cleveland Stamping & Tool Co., Cleve-  
land, O.

Reading Machine & Tool Co., Reading,  
Pa.

Reading Standard Cycle Mfg. Co., Read-  
ing, Pa.

**Enamel, Radiator—**

Devco & Raynolds Co., 176 Randolph St.,  
Chicago, Ill.

**Enclosures, Elevator—**

(See Elevator Enclosures.)

**End Mills—**

(See Mills.)

**Engine Bells, Governors,  
&c.—**

(See Bells, Governors, &c.)

**Engineers, Blast Furnace, Constructing—**

Walter Kennedy, Pittsburgh, Pa.  
 Alex Laughlin & Co., Pittsburgh, Pa.  
 Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Blast Furnace, Designing—**

Walter Kennedy, Pittsburgh, Pa.  
 Alex Laughlin & Co., Pittsburgh, Pa.  
 Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Bridge and Structural, Constructing—**

Boston Bridge Works, Boston, Mass.  
 Garry Iron & Steel Co., Cleveland, O.  
 Julian Kennedy, Pittsburgh, Pa.

South Pittsburg Iron Works, Claysville, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Bridge and Structural, Designing—**

Boston Bridge Works, Boston, Mass.  
 Garry Iron & Steel Co., Cleveland, O.  
 Julian Kennedy, Pittsburgh, Pa.

South Pittsburg Iron Works, Claysville, Pa.

Emil Swenson, Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Civil, Constructing—**

Forster-Miller Engineering Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.

Julian Kennedy, Pittsburgh, Pa.

South Pittsburg Iron Works, Claysville, Pa.

**Engineers, Civil, Consulting—**

Robert W. Hunt & Co., 66 Broadway, New York.

Julian Kennedy, Pittsburgh, Pa.

McGeorge & Sons, Cleveland, O.

Emil Swenson, Pittsburgh, Pa.

**Engineers, Civil, Designing—**

Garry Iron & Steel Co., Cleveland, O.

Robert W. Hunt & Co., 66 Broadway, New York.

Julian Kennedy, Pittsburgh, Pa.

McGeorge & Sons, Cleveland, O.

South Pittsburg Iron Works, Claysville, Pa.

Emil Swenson, Pittsburgh, Pa.

**Engineers, Constructing—**

American Furnace & Machine Co., Pittsburgh, Pa.

Amsler Engineering Co., Pittsburgh, Pa.

Boston Bridge Works, Boston, Mass.

Browning Engineering Co., Cleveland, O.

Edward E. Erikson, Pittsburgh, Pa.

Forster-Miller Engineering Co., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

I. & E. Grewald Co., Cincinnati, O.

Harman-Cogger Co., Bloomsburg, Pa.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.

E. Keeler Co., Williamsport, Pa.

Julian Kennedy, Pittsburgh, Pa.

Alex Laughlin & Co., Pittsburgh, Pa.

James J. Mahon, Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Passaic Steel Co., Paterson, N. J.

Pennsylvania Engineering Works, New Castle, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

S. R. Smythe Co., Pittsburgh, Pa.

Emil Swenson, Pittsburgh, Pa.

Wm. Swindell & Bro., Pittsburgh, Pa.

Hugh L. Thompson, Waterbury, Ct.

F. H. Treat, Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Electrical—**

Electric Controller & Supply Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Electrical, Constructing—**

Electric Controller & Supply Co., Cleveland, O.

McGeorge & Sons, Cleveland, O.

Northern Engineering Works, Detroit, Mich.

**Engineers, Electrical, Designing—**

Electric Controller & Supply Co., Cleveland, O.

McGeorge & Sons, Cleveland, O.

**Engineers, Heating and Ventilating—**

Garry Iron & Steel Co., Cleveland, O.

E. Keeler Co., Williamsport, Pa.

**Engineers, Heating and Ventilating, Constructing—**

E. Keeler Co., Williamsport, Pa.

**Engineers, Inspecting and Consulting—**

Robert W. Hunt & Co., 66 Broadway, New York.

Emil Swenson, Pittsburgh, Pa.

**Engineers, Mechanical—**

Henry Aiken, Pittsburgh, Pa.

American Furnace & Machine Co., Pittsburgh, Pa.

Amsler Engineering Co., Pittsburgh, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Forster-Miller Engineering Co., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

Harman-Cogger Co., Bloomsburg, Pa.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.

Robert W. Hunt & Co., 66 Broadway, New York.

Walter Kennedy, Pittsburgh, Pa.

Power Specialty Co., 128 Liberty St., New York.

F. H. Treat, Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Mechanical, Constructing—**

Dodge Mfg. Co., Mishawaka, Ind.

Filer & Stowell Co., Milwaukee, Wis.

Forster-Miller Engineering Co., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.

Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.  
G. W. McClure, Son & Co., Pittsburgh, Pa.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
Northern Engineering Works, Detroit, Mich.  
Pennsylvania Engineering Works, New Castle, Pa.  
Power Specialty Co., 126 Liberty St., New York.

S. R. Smythe Co., Pittsburgh, Pa.  
Wm. Swindell & Bros., Pittsburgh, Pa.  
Hugh L. Thompson, Waterbury, Ct.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Mechanical, Consulting—**

Dodge Mfg. Co., Mishawaka, Ind.  
Factory Exchange, Boston, Mass.  
Filer & Stowell Co., Milwaukee, Wis.  
Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.  
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
G. W. McClure, Son & Co., Pittsburgh, Pa.

McGeorge & Sons, Cleveland, O.  
D. F. Nisbet, Pittsburgh, Pa.  
Power Specialty Co., 126 Liberty St., New York.

S. R. Smythe Co., Pittsburgh, Pa.  
Hugh L. Thompson, Waterbury, Ct.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Mechanical, Designing—**

Dodge Mfg. Co., Mishawaka, Ind.  
Filer & Stowell Co., Milwaukee, Wis.  
Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.  
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
G. W. McClure, Son & Co., Pittsburgh, Pa.

McGeorge & Sons, Cleveland, O.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.

D. F. Nisbet, Pittsburgh, Pa.  
Northern Engineering Works, Detroit, Mich.

Pennsylvania Engineering Works, New Castle, Pa.

Power Specialty Co., 126 Liberty St., New York.

Wm. Swindell & Bros., Pittsburgh, Pa.  
Hugh L. Thompson, Waterbury, Ct.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Mining—**

McGeorge & Sons, Cleveland, O.

**Engineers, Steel Works and Rolling Mills—**

American Furnace & Machine Co., Pittsburgh, Pa.  
Amsler Engineering Co., Pittsburgh, Pa.  
Victor Beutner, Pittsburgh, Pa.  
Edward E. Erikson, Pittsburgh, Pa.  
Porter-Miller Engineering Co., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.  
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
N. Lilienberg, Betz Bldg., Philadelphia, Pa.

James J. Mahon, Pittsburgh, Pa.  
S. R. Smythe Co., Pittsburgh, Pa.  
Hugh L. Thompson, Waterbury, Ct.

F. H. Treat, Pittsburgh, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Steel Works and Rolling Mills, Constructing—**

Ralph Crooker, Jr., Pittsburgh, Pa.  
Porter-Miller Engineering Co., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.  
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

S. V. Huber & Co., Pittsburgh, Pa.  
Wm. H. Holcroft & Co., Chester, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
Alex Laughlin & Co., Pittsburgh, Pa.

James J. Mahon, Pittsburgh, Pa.  
G. W. McClure, Son & Co., Pittsburgh, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
Morgan Construction Co., Worcester, Mass.

Northern Engineering Works, Detroit, Mich.  
Pennsylvania Engineering Works, New Castle, Pa.

S. R. Smythe Co., Pittsburgh, Pa.  
Wm. Swindell & Bros., Pittsburgh, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Steel Works and Rolling Mills, Consulting—**

S. V. Huber & Co., Pittsburgh, Pa.

**Engineers, Steel Works and Rolling Mills, Designing—**

Ralph Crooker, Jr., Pittsburgh, Pa.  
Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.  
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

Wm. H. Holcroft & Co., Chester, Pa.  
S. V. Huber & Co., Pittsburgh, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
Alex Laughlin & Co., Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh, Pa.  
McGeorge & Sons, Cleveland, O.

James J. Mahon, Pittsburgh, Pa.  
Morgan Construction Co., Worcester, Mass.

D. F. Nisbet, Pittsburgh, Pa.  
Northern Engineering Works, Detroit, Mich.

Pennsylvania Engineering Works, New Castle, Pa.  
S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Engineers, Steel Works and Rolling Mills, Constructing—**

Ralph Crooker, Jr., Pittsburgh, Pa.

Garrett-Cromwell Engineering Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.

James J. Mahon, Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh, Pa.

McGeorge & Sons, Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engines, Air—**

E. W. Bliss Co., Brooklyn, N. Y.

Northern Engineering Works, Detroit, Mich.

Pedrick & Ayer Co., 8 Liberty St., N. Y.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

MERCHANTS.

Joseph T. Ryerson & Son, 15-22 Milwaukee Ave., Chicago, Ill.

**Engines, Blowing—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.

Mesta Machine Co., Pittsburgh, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Southward Foundry & Machine Co., Philadelphia, Pa.

William Tod Co., Youngstown, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Engines, Fire—**

Deming Co., Salem, O.

Goulds Mfg. Co., Seneca Falls, N. Y.

**Engines, Gas and Gasoline—**

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Buffalo Forge Co., Buffalo, N. Y.

Charter Gas Engine Co., Sterling, Ill.

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Chicago Scale Co., 22-26 Jackson Boulevard, Chicago, Ill.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 415 Broome St., New York.

H. H. Franklin Mfg. Co., Syracuse, N. Y.

Arm. Metz, 125-126 1st St., New York.

Northern Engineering Works, Detroit, Mich.

George B. Sennett Co., Youngstown, O.

South Pittsburgh Iron Works, Claysville, Pa.

Seaver Mfg. Co., Freeport, Ill.

Struthers, Wells & Co., Warren, Pa.

William Tod Co., Youngstown, O.

Veske Foundry & Machine Co., Pittsburgh, Pa.

Water Gas & Gasoline Engine Co., Kansas City, Mo.

Wellman-Seaver-Morgan Co., Cleveland, O.

Woolley Foundry & Machine Works, Anderson, Ind.

MERCHANTS.

O'Brien Mfg. Co., 55 Indiana St., Chicago, Ill.

Barney M. Erverson, Pittsburgh, Pa.

M. L. Erverson & Co., Pittsburgh, Pa.

L. F. Seibert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Engines, Gas and Gasoline Launch—**

Automatic Machine Co., Bridgeport, Ct.

Charter Gas Engine Co., Sterling, Ill.

Dodge Mfg. Co., Mishawaka, Ind.

MERCHANTS.

Lovegrove & Co., 143 N. 3d St., Philadelphia, Pa.

**Engines, Gas and Gasoline Pumping—**

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Charter Gas Engine Co., Sterling, Ill.

Deming Co., Salem, O.

Struthers, Wells & Co., Warren, Pa.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.

MERCHANTS.

Carlin Machinery & Supply Co., Allegheny, Pa.

**Engines, Hoisting—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Brown Hoisting Machinery Co., Inc., Cleveland, O.

Charter Gas Engine Co., Sterling, Ill.

Thomas P. Conard, 119 So. 4th St., Philadelphia, Pa.

Curry & Vannan, Danville, Pa.

Hiller & Stowell Co., Milwaukee, Wis.

C. W. Hunt Co., West New Brighton, N. Y.

Lidgerwood Mfg. Co., 98 Liberty St., N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Soule Steam Feed Works, Meridian, Miss.

William Tod Co., Youngstown, O.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Charles Behlen, 72 Trinity Pl., New York.

Carlin Machinery & Supply Co., Allegheny, Pa.

F. B. Maxim, Boston, Mass.

McBowell & Co., Pittsburgh, Pa.

L. F. Seibert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

R. B. Sherman & Co., Boston, Mass.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

**Engines, Hydraulic—**  
(See Motors, Water.)

**Engines, Hydrocarbon, Ignition Apparatus for—**

Baker & Co., Newark, N. J.

**Engines, Marine—**

Chas. F. Elmes Engineering Works, 28-29 Fulton St., Chicago, Ill.

Newport News Ship Building & Dry Dock Co., Newport News, Va.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

**MERCHANTS.**

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
**Engines, Oil—**  
 Aug. Metz, 123-128 Mott St., New York.  
**Engines, Pumping—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Deming Co., Salem, O.  
 Filer & Stowell Co., Milwaukee, Wis.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Southwark Foundry & Machine Co., Philadelphia, Pa.  
 William Tod Co., Youngstown, O.  
 Weber Gas & Gasoline Engine Co., Kansas City, Mo.  
 Robert Wetherill & Co., Chester, Pa.  
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**MERCHANTS.**

Carlin Machinery & Supply Co., Allegheny, Pa.  
**Engines, Rolling Mill—**  
 Alliance Machine Co., Alliance, O.  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Curry & Vannan, Danville, Pa.  
 George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.  
 Mesta Machine Co., Pittsburgh, Pa.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Morgan Construction Co., Worcester, Mass.  
 L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
 Southwark Foundry & Machine Co., Philadelphia, Pa.  
 William Tod Co., Youngstown, O.  
 Wellman-Seaver-Morgan Co., Cleveland, O.  
 Robert Wetherill & Co., Chester, Pa.  
 Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Charles Behlen, 72 Trinity Pl., New York.  
 Barclay M. Everson, Pittsburgh, Pa.  
 Carlin Machinery & Supply Co., Allegheny, Pa.  
 F. E. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
 Rossiter, MacGovern & Co., 141 Broadway, New York.  
**Engines, Rotary Steam—**  
 Soule Steam Feed Works, Meridian, Miss.  
**Engines, Steam—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Boston Blower Co., Hyde Park, Mass.  
 Brown Corliss Engine Co., Milwaukee, Wis.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Thos. Carlin's Sons, Allegheny, Pa.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.  
 Curry & Vannan, Danville, Pa.  
 Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.  
 Exeter Machine Works, Exeter, N. H.  
 Filer & Stowell Co., Milwaukee, Wis.  
 I. & E. Greenwald Co., Cincinnati, O.  
 George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.  
 Howard & Morse, 45 Fulton St., N. Y.  
 Lane & Bodley Co., Cincinnati, O.

Mesta Machine Co., Pittsburgh, Pa.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Newport News Ship Building & Dry Dock Co., Newport News, Va.  
 F. R. Patch Mfg. Co., Rutland, Vt.  
 Payne Co., Elmira, N. Y.  
 Southern Engine & Boiler Works, Jackson, Tenn.  
 Southwark Foundry & Machine Co., Philadelphia, Pa.  
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.  
 Struthers, Wells & Co., Warren, Pa.  
 B. F. Sturtevant Co., Boston, Mass.  
 William Tod Co., Youngstown, O.  
 Velte Foundry & Machine Co., Pittsburgh, Pa.  
 Vilter Mfg. Co., Milwaukee, Wis.  
 Wellman-Seaver-Morgan Co., Cleveland, O.  
 Robt. Wetherill & Co., Chester, Pa.  
 Wickes Bros., Saginaw, Mich.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
 Charles Behlen, 72 Trinity Place, N. Y.  
 Bosworth-Holding Co., Cleveland, O.  
 Browning Engineering Co., Cleveland, O.  
 Contractors' Equipment Co., Betz Bldg., Philadelphia, Pa.  
 John W. Cole, Providence, R. I.  
 W. P. Davis Machine Co., Rochester, N. Y.  
 Wm. J. Dunn, Fall River, Mass.  
 Charles E. Dustin Co., 11 Broadway, New York.  
 Barclay M. Everson, Pittsburgh, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Jeffrey Mfg. Co., Columbus, O.  
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.  
 A. G. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.  
 Lovegrove & Co., Inc., 113-115 N. 3d St., Philadelphia, Pa.  
 F. B. Maxim, Boston, Mass.  
 McDowell & Co., Pittsburgh, Pa.  
 Mertes Machine Co., Milwaukee, Wis.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Rossiter, MacGovern & Co., 141 Broadway, New York.  
 L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
 Chas. G. Shepard, Buffalo, N. Y.  
 H. R. Sherman & Co., Boston, Mass.  
 Thompson, Son & Co., 114 Liberty St., New York.  
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
 El H. Wachs Co., 158 Indiana St., Chicago, Ill.  
 Whitehead Machinery Co., Davenport, Ia.  
 E. O. Williams, 63 So. Canal St., Chicago, Ill.  
 C. C. Wormer Machinery Co., Detroit, Mich.  
**Engines, Steam Auto-mobile—**  
 Mason Regulator Co., Boston, Mass.  
**Engravers and Designers—**  
 A. Mugford, Hartford, Ct.  
**Engravers' or Sign Brass—**  
 (See Brass, Sign.)  
**Engravers' Tools—**  
 (See Tools, Engravers')



**Engraving—**  
Crowe Metal Mfg. Co., 71 W. Jackson  
Blvd., Chicago, Ill.

A. Muford, Hartford, Ct.  
Schwerdtle Stamp Co., Bridgeport, Ct.

**Engraving, Brass and Steel—**

Becker Name Plate Co., Boston, Mass.

**Engraving Lathes, Roll—**  
(See Lathes, Roll Engraving.)

**Engraving, Photo, Half-tone and Wood—**

A. Muford, Hartford, Ct.

**Ensilage and Feed Cutters—**  
(See Cutters, Feed.)

**Ensilage Cutter Elevators—**  
(See Elevators, Ensilage Cutter.)

**Envelopes, Adjustable, Tie, &c.—**

Globe-Wernicke Co., Cincinnati, O.

**Envelopes, Tag—**

American Mfg. Co., Battle Creek, Mich.

**Equipment, Telegraph and Telephone Pole Line—**

(See Telegraph and Telephone Pole Line Equipment.)

**Erasers—**

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

**Erasers, Rubber—**

Jos. Dixon Crucible Co., Jersey City, N. J.

Keuffel & Esser Co., 127 Fulton St., New York.

**Escapes, Fire—**

Wm. Bayley & Sons Co., Milwaukee, Wis.

Enterprise Foundry & Machine Co., South Bethlehem, Pa.

Covert Mfg. Co., West Troy, N. Y.

Donovan Wire & Iron Co., Toledo, O.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Forest City Steel & Iron Co., Cleveland, O.

Howard & Morse, 45 Fulton St., N. Y.

W. N. Kratzer & Co., Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Stewart Iron Works, Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Escutcheon Pins—**

(See Pins.)

**Escutcheons—**

Jos. Bardsley, 147-151 Baxter St., N. Y.

Hardware Supply Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Taylor & Boggis Foundry Co., Cleveland, O.

United States Steel Lock Co., Clinton, Ia.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Evaporators, Acid—**

Harman-Cogger Co., Bloomsburg, Pa.

**Evaporators, Sugar—**

Harman-Cogger Co., Bloomsburg, Pa.

**Excavating Machinery—**

Kilbourne & Jacobs Mfg. Co., Columbus, O.

A. Leachen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Vulcan Iron Works, Chicago, Ill.

**Exercisers—**

Caldwell Mfg. Co., Rochester, N. Y.

Hoerle Mfg. Co., Pittsburgh, Pa.

**Exhausters—**  
(See Fans.)

**Exhausters, Gas—**

Buffalo Forge Co., Buffalo, N. Y.

Connorsville Blower Co., Connorsville, Ind.

B. F. Sturtevant Co., Boston, Mass.

**Exhaust Heads—**  
(See Heads, Exhaust.)

**Expanders, Bicycle—**  
(See Bicycle Expanders.)

**Expanders, Tube—**

Richard Dudgeon, 24 Columbia St., N. Y.

Helwig Mfg. Co., St. Paul, Minn.

A. L. Henderer's Sons, Wilmington, Del.

Watson-Stillman Co., 204-210 East 43d St., New York.

**MERCHANTS,**

Jos. F. McCoy Co., 157 Chambers St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

**Expanding Dies, Adjustable—**  
(See Dies, Adjustable Expanding.)

**Expansion Augers, Bits, Bolts, &c.—**  
(See Augers, Bits, Bolts, &c.)

**Exploders, Cartridge, Cane Tip—**

Susquehanna Casting Co., Wrightsville, Pa.

**Exporters, Machinery—**

Chas. G. Eckstein, 249 Centre St., N. Y.

**Extension Bit Holders, Braces, Gates—**  
(See Holders, Braces, Gates.)

**Extinguishers, Fire—**

E. B. Badger & Sons Co., Boston, Mass.

Randolph-Cloves Co., Waterbury, Ct.

Walworth Mfg. Co., Boston, Mass.

**Extractors, Juice—**

Enterprise Mfg. Co., Philadelphia, Pa.

**Eye Bolt Machines—**

Williams, White & Co., Moline, Ill.

**Eye Bolts, Trolley—**  
(See Trolley Materials, Electric.)

**Eye Hoes—**  
(See Hoes, Eye)

**Eyelet Machines—**

Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

Waterbury Machine Co., Waterbury, Ct.

**Eyelet Punches—**  
(See Punches, Eyelet and Fastener.)

**Eyelets, Metallic—**

Waterbury Brass Co., Waterbury, Ct.

**Eyes, Cock—**

Covert Mfg. Co., West Troy, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Eyes, Dead, Bull's, &c.—**

Boston & Lockport Block Co., Boston.

**Eye Shields, Mica—**

J. W. Paxson Co., Philadelphia, Pa.

**Eyes, Hot House or Garden—**

Parker Wire Goods Co., Worcester, Mass.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Eyes, Transom—**

Sargent & Co., 151 Leonard St., N. Y.

**Face Plate Jaws—**

(See Jaws, Face Plate.)

**Face Plates, Lathe—**

Union Mfg. Co., New Britain, Ct.

**Faces, Dial—**

Crowe Metal Mfg. Co., 71 W. Jackson Blvd., Chicago, Ill.

**Facing Machines, Nut—**

Acme Machinery Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Facings, Foundry—**

Joe Dixon Crucible Co., Jersey City, N. J.

E. M. Haedrich, 314 Walnut St., Philadelphia, Pa.

Hill & Griffith Co., Cincinnati, O.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Springfield Facing Co., Springfield, Mass.

**Factory Buckets, Tubs,**

**Tanks—**

(See Buckets, Tubs, Tanks.)

**Factory Ventilating—**

(See Ventilating System, Balanced.)

**Family Grindstones,**

**Scales—**

(See Grindstones, Scales.)

**Fancy Chains—**

(See Chains, Wagon and Fancy.)

**Fan Motors, Electric—**

(See Motors, Electric Fan.)

**Fans—**

American Blower Co., Detroit, Mich.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Champion Blower & Forge Co., Lancaster, Pa.

Exeter Machine Works, Exeter, N. H.

Howard & Morse, 45 Fulton St., N. Y.

B. F. Sturtevant Co., Boston, Mass.

**MERCHANTS,**

Fairbanks Co., 416 Broome St., New York.

Fulton Blower & Supply Co., 180 Fulton St., New York.

Power Specialty Co., 126 Liberty St., New York.

Wickes Bros., Saginaw, Mich.

**Fans, Electric—**

American Blower Co., Detroit, Mich.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Buffalo Forge Co., Buffalo, N. Y.

General Electric Co., Schenectady, N. Y.

Howard & Morse, 45 Fulton St., N. Y.

Sprague Electric Co., 527-531 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**MERCHANTS,**

Fulton Blower & Supply Co., 180 Fulton St., New York.

**Fans, Exhaust—**

American Blower Co., Detroit, Mich.

Boston Blower Co., Hyde Park, Mass.

Broomell, Schmidt & Steacy Co., York, Pa.

Buffalo Forge Co., Buffalo, N. Y.

Case Mfg. Co., Columbus, O.

Exeter Machine Works, Exeter, N. H.

Howard & Morse, 45 Fulton St., N. Y.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

B. F. Sturtevant Co., Boston, Mass.

**MERCHANTS,**

Baird Machinery Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Fulton Blower & Supply Co., 180 Fulton St., New York.

S. Obermayer Co., Cincinnati, O.

Power Specialty Co., 126 Liberty St., New York.

Wickes Bros., Saginaw, Mich.

**Fans, Fly—**

Bridgeport Brass Co., Bridgeport, Ct.

**Farm Bells, Sleds—**

(See Bells, Sleds.)

**Farriers' Knives—**

(See Knives, Farrier.)

**Fastener Punches—**

(See Punches, Eyelet and Fastener.)

**Fasteners and Hinges, Box—**

(See Hinges and Fasteners.)

**Fasteners, Bedstead—**

Plenger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Susquehanna Castings Co., Wrightsville, Pa.

Wrightsville Hardware Co., Wrightsville, Pa.

**Fasteners, Belt—**

Billings & Spencer Co., Hartford, Ct.

Bristol Co., Waterbury, Ct.

W. O. Talcott, Providence, R. I.

Upon Nut Co., Cleveland, O.

**Fasteners, Blind—**

Charles Parker Co., Meriden, Ct.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Susquehanna Casting Co., Wrightsville, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

R. P. Whipple & Co., Springfield, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

**Fasteners, Box and Tub—**

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

**Fasteners, Casement—**

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Fasteners, Cellar Window—**

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Fasteners, Chain Door—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

- Fasteners, Conductor—**  
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Fasteners, Ice Box, Lever—**  
 Reading Hardware Co., Reading, Pa.  
 Sargent & Co., 151 Leonard St., N. Y.
- Fasteners, Paper—**  
 Little River Mfg. Co., Seymour, Ct.
- Fasteners, Rope and Strap—**  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Stowell Mfg. & Foundry Co., So. Milwaukee, Wis.
- Fasteners, Sash—**  
 Caldwell Mfg. Co., Rochester, N. Y.  
 H. B. Ives Co., New Haven, Ct.  
 New York Lock Co., Branford, Ct.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.
- Fasteners, Screen and Storm Sash—**  
 Phenix Mfg. Co., Milwaukee, Wis.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stanley Works, New Britain, Ct.  
 Wire Goods Co., Worcester, Mass.  
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
- Fasteners, Scuttle—**  
 Sargent & Co., 151 Leonard St., N. Y.
- Fasteners, Stair Carpet—**  
 Hoerle Mfg. Co., Pittsburgh, Pa.
- Fasteners, Sheet Roofing—**  
 Garry Iron & Steel Co., Cleveland, O.
- Fasteners, Table Top—**  
 Hardware Supply Co., Grand Rapids, Mich.
- Fasteners, Tag—**  
 E. H. Titchener & Co., Binghamton, N. Y.
- Faucets, Bottling—**  
 Landers, Frary & Clark, New Britain, Ct.  
 McKenna Bros. Brass Co., Pittsburgh, Pa.
- Faucets, Brass—**  
 John H. Graham & Co., 113 Chambers St., New York.  
 Illinois Mallicable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 Landers, Frary & Clark, New Britain, Ct.  
 McKenna Bros. Brass Co., Pittsburgh, Pa.  
 Walworth Mfg. Co., Boston, Mass.
- Faucets, Can—**  
 Landers, Frary & Clark, New Britain, Ct.  
 Taylor & Boggis Foundry Co., Cleveland, O.
- Faucets, Iron—**  
 North Bros. Mfg. Co., Philadelphia, Pa.  
 Union Mfg. Co., New Britain, Ct.  
 Walworth Mfg. Co., Boston, Mass.
- Faucets, Measuring—**  
 Enterprise Mfg. Co., Philadelphia, Pa.  
 Lane Bros. Co., Poughkeepsie, N. Y.
- Faucets, Suction—**  
 Enterprise Mfg. Co., Philadelphia, Pa.
- Faucets, Wood—**  
 Boston & Lockport Block Co., Boston.  
 Penger & Henger Mfg. Co., St. Louis, Mo.  
 John Sommer's Son, Newark, N. J.
- Feed and Ensilage Cutters—**  
 (See Cutters, Feed.)
- Feeders, Automatic Furnace, for Shavings—**  
 Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
- Feeders, Boiler—**  
 (See Boiler Feeders.)
- Feed Mangers—**  
 (See Mangers, Feed.)
- Feed Mills, Pumps, Boiler—**  
 (See Mills, Pumps, Boiler Feed.)
- Feeds, Steam, Saw Mill—**  
 Pawling & Harnischfeger, Milwaukee, Wis.  
 Soule Steam Feed Works, Meridian, Miss.
- Feed Water Heaters, Purifiers, Regulators—**  
 (See Heaters, Purifiers, Regulators.)
- Feed Wire, Bare and Insulated—**  
 (See Wires, Electrical.)
- Felloe and Turning Webs—**  
 (See Webs, Turning, Felloe, &c.)
- Felloe Plates—**  
 (See Plates, Felloe.)
- Felting, Hair—**  
 Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.
- Fence and Wire Stretchers—**  
 (See Stretchers, Fence and Wire.)
- Fence Machines—**  
 Elliott & Reid Co., Richmond, Ind.  
 Franklin Mfg. Co., New Haven, Ct.  
 Hoefler Mfg. Co., Freeport, Ill.  
 International Steel Post Co., St. Louis, Mo.  
 Kokomo Steel & Wire Co., Kokomo, Ind.
- Fence Machines, Wire—**  
 Franklin Mfg. Co., New Haven, Ct.
- Fence Posts—**  
 (See Posts.)
- Fence Wire—**  
 (See Wire, Iron and Steel, Market, Fence, Stone, &c.)
- Fencing, Gates, &c.—**  
 W. J. Adam, Joliet, Ill.  
 American Wire Fence Co., 189 La Salle St., Chicago, Ill.  
 Buffalo Wire Works Co., Buffalo, N. Y.  
 Clinton Wire Cloth Co., Clinton, Mass.  
 Crawfordsville Wire & Nail Co., Crawfordsville, Ind.  
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
 De Kalb Fence Co., De Kalb, Ill.  
 Denning Fence Works, Cedar Rapids, Ia.  
 Donovan Wire & Iron Co., Toledo, O.  
 Elliott & Reid Co., Richmond, Ind.  
 Enterprise Foundry & Fence Co., Indianapolis, Ind.  
 Estey Wire Works Co., 59 Fulton St., New York.  
 Frost Wire Fence Co., Cleveland, O.  
 Gilbert & Bennett Mfg. Co., 277 Broadway, New York.  
 Glen Mfg. Co., Ellwood City, Pa.  
 Grand Crossing Tack Co., Grand Crossing, Ill.  
 Howard & Morse, 45 Fulton St., N. Y.  
 International Fence & Fireproofing Co., Columbus, O.  
 International Steel Post Co., St. Louis.

Kokomo Steel & Wire Co., Kokomo, Ind.  
W. N. Kratzer & Co., Pittsburgh, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Majestic Wire Fence Co., Detroit, Mich.  
Fred. J. Meyers Mfg. Co., Hamilton, O.  
National Iron & Wire Co., Cleveland, O.  
National Wire Corporation, New Haven, Ct.

New Jersey Wire Cloth Co., Trenton, N. J.  
Pittsburgh Steel Co., Pittsburgh, Pa.  
Spring Steel Fence & Wire Co., Anderson, Ind.

Stewart Iron Works, Cincinnati, O.  
Van Dorn Iron Works Co., Cleveland, O.  
Wright Wire Co., Worcester, Mass.

**Fencing, Poultry—**

Spring Steel Fence & Wire Co., Anderson, Ind.

**Fender Nails—**

(See Nails, Fender.)

**Fenders and Dashes—**

(See Dashes and Fenders.)

**Fenders and Tips, Rubber—**

(See Tips, Fenders, Rubber.)

**Fenders, Carriage—**

McKinnon Dash Co., Buffalo, N. Y.

**Fenders, Fire Place—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Howard & Morse, 45 Fulton St., N. Y.  
Fred. J. Meyers Mfg. Co., Hamilton, O.

Murdoch Corporation, Boston, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wright Wire Co., Worcester, Mass.

**Fenders, Furniture—**

Elastic Tip Co., Boston, Mass.

**Fenders, Lawn Mower—**

Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.

**Ferro-Aluminum—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.  
Pittsburgh Reduction Co., Pittsburgh, Pa.

**MERCHANTS**

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

**Ferro-Chrome—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.  
Pittsburgh Reduction Co., Pittsburgh, Pa.

**MERCHANTS**

Reed F. Blair & Co., Pittsburgh, Pa.  
Frank Samuel, Harrison Bldg., Philadelphia, Pa.

**Ferro-Manganese—**

Geo. G. Blackwell, Sons & Co., The Albany, Liverpool, England.

**MERCHANTS**

Reed F. Blair & Co., Pittsburgh, Pa.  
J. H. Hillman & Son, Pittsburgh, Pa.  
C. W. Leavitt & Co., 15 Cortlandt St., New York.

J. W. Paxson Co., Philadelphia, Pa.  
Frank Samuel, Harrison Bldg., Philadelphia, Pa.

W. P. Snyder & Co., Pittsburgh, Pa.

**Ferro-Molybdenum—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.

**MERCHANTS**

Reed F. Blair & Co., Pittsburgh, Pa.

**Ferro-Nickel—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.

**Ferro-Silicon—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.

**MERCHANTS**

Reed F. Blair & Co., Pittsburgh, Pa.  
J. H. Hillman & Son, Pittsburgh, Pa.

C. W. Leavitt & Co., 15 Cortlandt St., New York.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

**Ferro-Sodium—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.

**Ferro-Tungsten—**

Geo. G. Blackwell, Sons & Co., Liverpool, England.

**MERCHANTS**

Reed F. Blair & Co., Pittsburgh, Pa.

**Ferrules—**

Bridgeport Brass Co., Bridgeport, Ct.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

McNab & Harlin Mfg. Co., 56 John St., New York.

National Tube Co., Pittsburgh, Pa.  
Pratt Chuck Co., Frankfort, N. Y.

Randolph-Clowes Co., Waterbury, Ct.  
Scovill Mfg. Co., Waterbury, Ct.

Union Hardware Co., Torrington, Ct.  
Waterbury Brass Co., Waterbury, Ct.

Withington & Cooley Mfg. Co., Jackson, Mich.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Fertilizer Distributers—**

Bateman Mfg. Co., Grenloch, N. J.

**Fertilizer Machinery—**

O. O. Bartlett & Snow Co., Cleveland, O.  
Blanchard Machinery Co., Boston, Mass.

Jeffrey Mfg. Co., Columbus, O.  
Poole Engineering & Machine Co., Baltimore, Md.

**Field Glasses—**

(See Glasses, Opera and Field.)

**Field Hoes—**

(See Hoes, Garden, Field, Mortar.)

**Fifth Wheels—**

(See Wheels, Fifth.)

**Figured Brass—**

(See Brass.)

**Figures and Letters—**

(See Letters, Figures, &c.)

**File, Chisel and Awl**

**Handles—**

(See Handles, Chisel, File, Awl, &c.)

**File Cleaners—**

(See Cleaners, File.)

**File Holders—**

(See Handles, Detachable Tool.)

**File Machinery—**

Hess Machine Works, 25th & Callowhill Sts., Philadelphia, Pa.

**Files, Saw—**

Nicholson File Co., Providence, R. I.  
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

**Files and Rasps—**

G. & H. Barnett Co., Philadelphia, Pa.  
 Fitchburg File Works, Fitchburg, Mass.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Heller Bros. Co., Newark, N. J.  
 Mayer & Co., 20th St. and Allegheny Ave., Philadelphia, Pa.  
 McCaffrey File Co., Philadelphia, Pa.  
 Nicholson File Co., Providence, R. I.  
 Stokes Bros. Mfg. Co., Freehold, N. J.  
 Whitman & Barnes Mfg. Co., Akron, O.

**Files and Rasps, Emery and Corundum—**

Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

**Files, Bill, Letter, &c.—**

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
 Globe-Wernicke Co., Cincinnati, O.  
 Tencwall File & Ledger Co., Ravenswood Sta., Chicago, Ill.

**Files, Card Index—**

Globe-Wernicke Co., Cincinnati, O.

**Files, Jewelers'—**

G. & H. Barnett Co., Philadelphia, Pa.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Mayer & Co., 20th St. and Allegheny Ave., Philadelphia, Pa.  
 Nicholson File Co., Providence, R. I.

**Files, Manicure—**

Henry Disston & Sons, Philadelphia, Pa.  
 Mayer & Co., 20th St. and Allegheny Ave., Philadelphia, Pa.

**Files, Newspaper—**

Globe-Wernicke Co., Cincinnati, O.

**Files, Paper—**

Arcade Mfg. Co., Freeport, Ill.  
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
 Fred. J. Meyers Mfg. Co., Hamilton, O.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.  
 Wire Goods Co., Worcester, Mass.  
 Wrightsville Hardware Co., Wrightsville, Pa.

**Files, Planer Knife—**

G. & H. Barnett Co., Philadelphia, Pa.  
 Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Mayer & Co., 20th and Allegheny Ave., Philadelphia, Pa.  
 Nicholson File Co., Providence, R. I.  
 Simonds Mfg. Co., Fitchburg, Mass.

**Filing Machines, Band Saw—**

(See Setting and Filing Machines, Band Saw.)

**Fillers, Bag—**

John Chatillon & Sons, 85-93 Cliff St., New York.

**Fillers, Bottle—**

Edson Mfg. Co., Boston, Mass.

**Fillers, Iron—**

Clark Cast Steel Cement Co., Shelton, Ct.  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
 S. Obermayer Co., Cincinnati, O.  
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Fillers, Nail Bin—**

J. D. Warren Mfg. Co., Chicago, Ill.

**Fillers, Rope—**

Ironsides Co., Columbus, Ind.

**Fillers, Wire Rope—**

Ironsides Co., Columbus, Ind.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.

**Fillers, Wood—**

American Asbestos Co., Terre Haute, Ind.  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

**Fillers, Leather—**

A. G. Butler, 101 Beekman St., N. Y.  
 Canton Fillet Co., Canton, O.  
 S. Obermayer Co., Cincinnati, O.

**MERCHANTS.**

Timmis & Clissold, Bound Brook, N. J.

**Fillers, Metal—**

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

**Fillers, Wood—**

Canton Fillet Co., Canton, O.

**Filter Paper—**

Eimer & Amend, 205 Third Ave., N. Y.

**Filter Presses—**

(See Presses, Filter.)

**Filters, Oil—**

(See Separators, Oil.)

**Filters, Water—**

Cleveland Stamping & Tool Co., Cleveland, O.

Charles Mundt & Sons, 441-447 Pearl St., New York.

Wm. E. Scaife & Sons, Pittsburgh, Pa.

N. A. Watson, Erie, Pa.

**Finger Bars, Cold Rolled—**

Jones & Laughlin Steel Co., Pittsburgh, Pa.

**Fingers, Grain Cradle—**

American Fork & Hoe Co., Cleveland, O.

**Finials, Iron—**

(See Iron, Ornamental.)

**Finials and Vanes, Metal—**

Berger Mfg. Co., Canton, O.  
 Canton Steel Roofing Co., Canton, O.  
 Donovan Wire & Iron Co., Toledo, O.  
 G. Drouve Co., Bridgeport, Ct.  
 W. N. Kratzer & Co., Pittsburgh, Pa.  
 Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.  
 National Sheet Metal Roofing Co., Jersey City, N. J.

**Finishes, Floor—**

Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Finishes, Wall—**

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Finishing Nails—**

(See Tacks, Brads, Finishing Nails, &c.)

**Finishing, Sheer and Swiss—**

I. E. Palmer, Middletown, Ct.

**Fire Alarm and Police Patrol Apparatus—**

Waggoner Watchman Clock Co., Grand Rapids, Mich.

**Firearms—**

(See Guns, Pistols, Revolvers, &c.)

**Fire Backs—**  
(See Stove Repairs, Extension Grates, Backs, &c.)

**Fire Bells, Brick—**  
(See Bells, Brick Fire.)

**Fire Boat Machinery—**  
Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

**Fire Buckets, Clay, &c.—**  
(See Buckets, Clay, &c.)

**Fire Door and Shutter Hardware—**  
Midland Iron Works, Racine, Wis.

**Fire Doors—**  
(See Doors and Shutters, Iron and Steel)

**Fire Escapes, Extinguishers—**  
(See Escapes, Extinguishers.)

**Firemen's Trumpets—**  
(See Trumpets, Firemen's, Silver Plated.)

**Fire Place Fenders—**  
(See Fenders, Fire Place.)

**Fire Pots, Tinnerns—**  
(See Furnaces, Plumbers' and Tinnerns'.)

**Fire Proof Building Material—**  
(See Building Material, Fire Proof.)

**Fire Proof Vaults—**  
(See Vaults, Fire and Burglar Proof.)

**Fire Sets—**  
(See Shovels, Tongs, Pokers, Fire Sets, &c.)

**Fish Plates, Scales, Traps—**  
(See Plates, Scales, Traps.)

**Fishing Reels—**  
(See Reels, Fishing.)

**Fishing Tackle—**  
Clark, Horrocks Co., Utica, N. Y.  
Dame, Stoddard & Co., Boston, Mass.

**Fish Stringers—**  
(See Stringers, Fish.)

**Fittings, Armonia—**  
Stanley G. Flagg & Co., Philadelphia, Pa.  
Vilter Mfg. Co., Milwaukee, Wis.  
J. H. Williams & Co., Brooklyn, N. Y.

**Fittings, Bicycle—**  
Crosby Co., Buffalo, N. Y.

**Fittings, Flanged, Pipe—**  
Crane Co., Chicago, Ill.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
McNab & Harlin Mfg. Co., 56 John St., New York.  
Charles Millar & Son Co., Utica, N. Y.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
Walworth Mfg. Co., Boston, Mass.  
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Fittings, Furnace—**  
S. M. Howes Co., Boston, Mass.

**Fittings, Hydraulic—**  
Chas. F. Elmes Engineering Works, Cor. Morgan and Fulton Sts., Chicago, Ill.

**Fittings, Marine—**  
E. W. Vanduzen Co., Cincinnati O.

**Fittings, Pipe—**  
American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.  
Crane Co., Chicago, Ill.  
Wm. M. Crane Co., 1131 Broadway, N. Y.  
Dimmick Pipe Co., Birmingham, Ala.  
Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
Stanley G. Flagg & Co., Philadelphia, Pa.  
Humphreys Mfg. Co., Mansfield, O.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Jarecki Mfg. Co., Erie, Pa.  
Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Manning, Maxwell & Moore, 85 Liberty St., New York.  
McNab & Harlin Mfg. Co., 56 John St., New York.  
Charles Millar & Son Co., Utica, N. Y.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.  
Walworth Mfg. Co., Boston, Mass.  
Watson-Stillman Co., 204-210 East 43d St., New York.  
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Fittings, Steam—**  
Crane Co., Chicago, Ill.  
Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Jarecki Mfg. Co., Erie, Pa.  
Lunkenheimer Co., Cincinnati, O.  
McNab & Harlin Mfg. Co., 56 John St., New York.

Charles Millar & Son Co., Utica, N. Y.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
Walworth Mfg. Co., Boston, Mass.

**Fittings, Tramway—**  
A. Leschen & Sons Rope Co., St. Louis, Mo.

**Fittings, Wire Rope—**  
Durable Wire Rope Co., Boston, Mass.  
A. Leschen & Sons Rope Co., St. Louis.  
Trenton Iron Co., Trenton, N. J.  
Williamsport Wire Rope Co., Williamsport, Pa.

**Fixtures and Furniture, Bank—**  
(See Bank Fixtures and Furniture.)

**Fixtures, Bathroom—**  
(See Bathroom Toilet Specialties.)

**Fixtures, Curtain Rod—**  
Wire Goods Co., Worcester, Mass.

**Fixtures, Grindstone, Stable, Store—**  
(See Grindstone, Stable, Store.)

**Fixtures, Lightning Rod—**  
Cleveland Galvanizing Works, Cleveland.

**Flags, Alcohol—**  
New York Stamping Co., Brooklyn, N. Y.

**Flag Pole Sockets—**  
(See Sockets, Flag Pole.)

**Flags, Bunting—**  
Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

**Flagstaff Holders—**  
(See Holders, Flagstaff.)

**Flange Couplings—**  
(See Couplings, Flange.)

**Flange Facing Machines—**  
Detrick & Harvey Machine Co., Baltimore, Md.

**Flanges, Forged Steel—**  
Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

**Flanges, Forged Steel for Distilleries—**  
 Millersburg Fifth Wheel Co., Millersburg, Pa.

**Flanges, Pressed Steel—**  
 E. Keeler & Co., Williamsport, Pa.

**Flanges, Weldless Steel—**  
 E. Keeler Co., Williamsport, Pa.

**Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.**

**Pressed Steel Tank Co., Milwaukee, Wis.**

**Ritter-Conley Mfg. Co., Pittsburgh, Pa.**

**Flanging Clamps—**  
 (See Clamps, Flanging.)

**Flanging Machines—**  
 Alliance Machine Co., Alliance, O.

**Flasks—**  
 Hull & Griffith Co., Cincinnati, O.

**Flasks, Foundry Snap—**  
 Adams Co., Dubuque, Ia.

**S. Obermayer Co., Cincinnati, O.**

**Flasks, Powder—**  
 Waterbury Brass Co., Waterbury, Ct.

**Flasks, Steel—**  
 Meehan Boiler & Construction Co., Lowellville, O.

**Flat Link Chains—**  
 (See Chains, Flat Link.)

**Flat Top Desks—**  
 (See Desks, Roll and Flat Top.)

**Flexible Hangers—**  
 (See Hangers, Hinge.)

**Flexible Shafts—**  
 (See Shafts, Flexible.)

**Flies, Artificial—**  
 Clark, Horrocks Co., Utica, N. Y.

**Floats, Copper Ball—**  
 McNab & Harlin Mfg. Co., 56 John St., New York.

**Naugatuck Mfg. Co., Naugatuck, Ct.**

**Floats, Counter—**  
 Louis Sacks Iron Foundry, Newark, N. J.

**Floats, Fish Line—**  
 Clark, Horrocks Co., Utica, N. Y.

**Floor and Base Knobs—**  
 (See Knobs, Base and Floor.)

**Floor Chisels—**  
 (See Chisels, Floor and Ripping.)

**Flooring, Bridge—**  
 Youngstown Iron & Steel Roofing Co., Youngstown, O.

**Flooring, Fire Proof—**  
 Garry Iron & Steel Co., Cleveland, O.

**Youngstown Iron & Steel Roofing Co., Youngstown, O.**

**Flooring Machines—**  
 S. A. Woods Machine Co., So. Boston, Mass.

**Floor Stands—**  
 (See Stands, Floor.)

**Floors, Wire Cloth—**  
 Clinton Wire Cloth Co., Clinton, Mass.

**Howard & Morse, 45 Fulton St., N. Y.**

**Ludlow-Saylor Wire Co., St. Louis, Mo.**

**Floral Designs—**  
 Fred. J. Meyers Mfg. Co., Hamilton, O.

**Wright Wire Co., Worcester, Mass.**

**Floor Mill Machinery—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

**Case Mfg. Co., Columbus, O.**

**Poole Engineering & Machine Co., Baltimore, Md.**

**Flour Sieves, Sifters, Testers—**  
 (See Sieves, Sifters, Testers.)

**Flower Guards—**  
 (See Guards, Flower and Tomato.)

**Flower Pickers—**  
 (See Pickers, Flower and Fruit.)

**Flower Pot Brackets, Stands—**  
 (See Brackets, Stands.)

**Flue Cleaners, Ventilators—**  
 (See Cleaners, Ventilators.)

**Flumes, Steel—**  
 E. Keeler Co., Williamsport, Pa.

**Wm. B. Pollock Co., Youngstown, O.**

**Flour Spar—**  
 S. Obermayer Co., Cincinnati, O.

**J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.**

**Flush Pipes, Rings—**  
 (See Pipes, Rings.)

**Fluted Drills—**  
 (See Drills, Fluted.)

**Fluters—**  
 North Bros. Mfg. Co., Philadelphia, Pa.

**Fly Fans, Killers, Traps—**  
 (See Fans, Killers, Traps.)

**Fly Wheels—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

**Case Mfg. Co., Columbus, O.**

**Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.**

**Curry & Vannan, Danville, Pa.**

**Dodge Mfg. Co., Mishawaka, Ind.**

**A. Garrison Foundry Co., Pittsburgh, Pa.**

**L. H. Goodnow Foundry Co., Fitchburg, Mass.**

**Jones & Laughlin Steel Co., Pittsburgh, Minneapolis Steel & Machinery Co., Minneapolis, Minn.**

**Pennsylvania Engineering Works, New Castle, Pa.**

**Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.**

**Poole Engineering & Machine Co., Baltimore, Md.**

**Wickes Bros., Saginaw, Mich.**

**MERCHANTS.**

**W. E. Caldwell Co., Louisville, Ky.**

**McDowell & Co., Pittsburgh, Pa.**

**Whitehead Machinery Co., Davenport, Ia.**

**Fodder Shredders, Dry—**  
 (See Shredders, Dry Fodder.)

**Foil, Platinum—**  
 J. Bishop & Co., Malvern, Pa.

**Folding Bed Hinges—**  
 (See Hinges, Folding Bed.)

**Folding Chairs—**  
 (See Chairs, Folding.)

**Folding Gates—**  
 (See Gates, Extension.)

**Folding Machinery, Paper—**  
 Chambers Bros. Co., 52d St. below Lancaster Ave., Philadelphia, Pa.

**Chas. Leffler & Co., Brooklyn, N. Y.**

**Foot Powers—**  
 (See Powers, Foot.)

**Forcing Machines, Hand or Power—**  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Wm. Sellers & Co. (Inc.), Philadelphia, Pa.**

**MERCHANTS.**

**Hill, Clarke & Co., Boston, Mass.**

**Forged Bolts, Unions—**  
(See Bolts, Unions.)

**Forges—**

Acme Machinery Co., Cleveland, O.  
American Gas Furnace Co., 23 John St., New York.  
Beaudry & Co., Boston, Mass.  
Billings & Spencer Co., Hartford, Ct.  
Boston Blower Co., Hyle Park, Mass.  
Boynton & Plummer, Worcester, Mass.  
C. C. Bradley & Son, Syracuse, N. Y.  
Buffalo Forge Co., Buffalo, N. Y.  
Burns Hydro-Carbon Burner Co., Ft. Plain, N. Y.  
Canton Foundry & Machine Co., Canton, O.  
Champion Blower & Forge Co., Lancaster, Pa.  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
Hayden-Roth-Evans Co., Cincinnati, O.  
Merrill Bros., Brooklyn, N. Y.  
Miner & Peck Mfg. Co., New Haven, Ct.  
Parson Mfg. Co., 320 Broadway, N. Y.  
J. E. Porter Co., Ottawa, Ill.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Silver Mfg. Co., Salem, O.  
Slotkin & Praglin, 210-212 Canal St., N. Y.  
H. F. Sturtevant Co., Boston, Mass.  
White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**MERCHANTS.**

Geo. E. Affleck, 109 Liberty St., N. Y.  
Brown-Wales Co., Boston, Mass.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Forges, Fuel Oil—**

Burns Hydro-Carbon Burner Co., Ft. Plain, N. Y.

**Forges, Gas—**

American Gas Furnace Co., 23 John St., New York.

**Forging and Bending Machines—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Forging Machines—**

Acme Machinery Co., Cleveland, O.  
Adriance Machine Works, Brooklyn, N. Y.  
Ajax Mfg. Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
Billings & Spencer Co., Hartford, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Mossberg & Granville Mfg. Co., Providence, R. I.  
National Machinery Co., Tiffin, O.  
Scranton & Co., New Haven, Ct.  
Williams, White & Co., Moline, Ill.

**MERCHANTS.**

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Forging Machines, Bolt—**

Acme Machinery Co., Cleveland, O.  
Ajax Mfg. Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
National Machinery Co., Tiffin, O.

**Forging Machines, Hand or**

**Power—**

Scranton & Co., New Haven, Ct.  
Williams, White & Co., Moline, Ill.

**Forging Machines, Nut—**

Acme Machinery Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
National Machinery Co., Tiffin, O.

**Forging Machines, Sheet Work—**

E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

**Forgings—**

Thomas D. Carpenter, Brooklyn, N. Y.

**Forgings, Automobile—**

Strieby & Foote Co., Newark, N. J.  
Thompson Drop Forge Co., Plantsville, Ct.

**Forgings, Bicycle—**

Belden Machine Co., New Haven, Ct.  
Billings & Spencer Co., Hartford, Ct.  
Blakeslee Forging Co., Plantsville, Ct.  
Chicago Drop Forge & Foundry Co., Kensington, Ill.  
E. D. Clapp Mfg. Co., Auburn, N. Y.  
Richard Eccles Co., Auburn, N. Y.  
Keystone Drop Forge Works, Chester, Pa.  
Kilborn & Bishop Co., New Haven, Ct.  
Page-Storms Drop Forge Co., Chicopee Falls, Mass.  
M. Seward & Son Co., New Haven, Ct.  
Springfield Drop Forging Co., Springfield, Mass.

Strieby & Foote Co., Newark, N. J.  
Thompson Drop Forge Co., Plantsville, Ct.

J. H. Williams & Co., Brooklyn, N. Y.  
Wyman & Gordon, Worcester, Mass.

**Forgings, Bronze—**

Billings & Spencer Co., Hartford, Ct.  
Blakeslee Forging Co., Plantsville, Ct.  
Chicago Drop Forge & Foundry Co., Kensington, Ill.  
Keystone Drop Forge Works, Chester, Pa.  
Kilborn & Bishop Co., New Haven, Ct.  
Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.  
Springfield Drop Forging Co., Springfield, Mass.

J. H. Williams & Co., Brooklyn, N. Y.  
Wyman & Gordon, Worcester, Mass.

**Forgings, Car—**

American Iron & Steel Mfg. Co., Lebanon, Pa.  
Cleveland City Forge & Iron Co., Cleveland, O.  
New Castle Forge & Bolt Co., New Castle, Pa.

**Forgings, Carriage—**

Belden Machine Co., New Haven, Ct.  
Billings & Spencer Co., Hartford, Ct.  
Blakeslee Forging Co., Plantsville, Ct.  
C. C. Bradley & Son, Inc., Syracuse, N. Y.  
Chicago Drop Forge & Foundry Co., Kensington, Ill.  
E. D. Clapp Mfg. Co., Auburn, N. Y.  
Cleveland City Forge & Iron Co., Cleveland, O.  
Richard Eccles Co., Auburn, N. Y.  
Kilborn & Bishop Co., New Haven, Ct.  
Millersburg Fifth Wheel Co., Millersburg, Pa.  
Scranton Forging Co., Scranton, Pa.  
M. Seward & Son Co., New Haven, Ct.  
Strieby & Foote Co., Newark, N. J.



Thompson Drop Forge Co., Plantsville, Ct.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Copper**

Billings & Spencer Co., Hartford, Ct.

Blakeslee Forging Co., Plantsville, Ct.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Homer F. Livermore, Boston, Mass.

Springfield Drop Forging Co., Springfield, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Drop**

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

Blakeslee Forging Co., Plantsville, Ct.

R. H. Brown & Co., New Haven, Ct.

Canton Drop Forging & Mfg. Co., Canton, O.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.

Columbian Hardware Co., Cleveland, O.

Richard Eccles Co., Auburn, N. Y.

Globe Machine & Stamping Co., Cleveland, O.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

M. Lanz & Sons, Pittsburgh, Pa.

Homer F. Livermore, Boston, Mass.

Marine Hardware & Equipment Co., So. Portland, Me.

McDougall & Potter Co., 606-612 W. 55th St., New York.

New Castle Forge & Bolt Co., New Castle, Pa.

Page-Storms Drop Forge Co., Chicopee Falls, Mass.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.

Rhode Island Tool Co., Providence, R. I.

Scranton Forging Co., Scranton, Pa.

M. Seward & Son Co., New Haven, Ct.

Smith & Hemenway Co., 236 Broadway, New York.

Springfield Drop Forging Co., Springfield, Mass.

Strieby & Foote Co., Newark, N. J.

Thompson Drop Forge Co., Plantsville, Ct.

Titusville Forge Co., Titusville, Pa.

Transue & Williams Co., Alliance, O.

Union Hardware Co., Torrington, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Gun**

Belden Machine Co., New Haven, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

Blakeslee Forging Co., Plantsville, Ct.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Thompson Drop Forge Co., Plantsville, Ct.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Handle**

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Iron, Special**

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

Blakeslee Forging Co., Plantsville, Ct.

Boston & Lockport Block Co., Boston.

Canton Drop Forging & Mfg. Co., Canton, O.

Charles D. Carpenter, Brooklyn, N. Y.

Chattanooga Car & Foundry Co., Chattanooga, Tenn.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland City Forge & Iron Co., Cleveland, O.

Columbia Machine Works & Malleable Iron Co., Brooklyn, N. Y.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Richard Eccles Co., Auburn, N. Y.

Fort Pitt Forge Co., Pittsburgh, Pa.

Indianapolis Drop Forging Co., Indianapolis, Ind.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

McDougall & Potter Co., 606-612 W. 55th St., New York.

Millersburg Fifth Wheel Co., Millersburg, Pa.

National Foundry & Machine Co., Nazareth, Pa.

Page-Storms Drop Forge Co., Chicopee Falls, Mass.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

George B. Sennett Co., Youngstown, O.

Strieby & Foote Co., Newark, N. J.

Thompson Drop Forge Co., Plantsville, Ct.

Titusville Forge Co., Titusville, Pa.

William Tod Co., Youngstown, O.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Manganese Bronze**

Billings & Spencer Co., Hartford, Ct.

W. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.

Keystone Drop Forge Works, Chester, Pa.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

#### **Forgings, Marine, Machine, Railroad and Shaft**

Avery Stamping Co., Cleveland, O.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Belden Machine Co., New Haven, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

Blakeslee Forging Co., Plantsville, Ct.  
 Braeburn Steel Co., Braeburn, Pa.  
 Canton Drop Forging & Mfg. Co., Canton, O.  
 Thomas D. Carpenter, Brooklyn, N. Y.  
 Chattanooga Car & Foundry Co., Chattanooga, Tenn.  
 Chicago Drop Forge & Foundry Co., Kensington, Ill.  
 E. D. Clapp Mfg. Co., Auburn, N. Y.  
 Cleveland City Forge & Iron Co., Cleveland, O.  
 Cleveland Punch & Shear Works Co., Cleveland, O.  
 Fort Pitt Forge Co., Pittsburgh, Pa.  
 Hay-Budden Mfg. Co., Brooklyn, N. Y.  
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.  
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
 Keystone Drop Forge Works, Chester, Pa.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Lockhart Iron & Steel Co., Pittsburgh, Pa.  
 Marine Hardware & Equipment Co., So. Portland, Me.  
 Otis Steel Co., Ltd., Cleveland, O.  
 Page-Storms Drop Forge Co., Chicopee Falls, Mass.  
 Passaic Steel Co., Paterson, N. J.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Wm. B. Scaife & Sons Co., Pittsburgh.  
 George B. Sennett Co., Youngstown, O.  
 Springfield Drop Forging Co., Springfield, Mass.  
 Strieby & Foote Co., Newark, N. J.  
 Thompson Drop Forge Co., Plantsville, Ct.  
 Tindel-Morris Co., Eddystone, Pa.  
 Titusville Forge Co., Titusville, Pa.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.  
 J. H. Williams & Co., Brooklyn, N. Y.  
 Wyman & Gordon, Worcester, Mass.

MERCHANTS.

Denman & Davis, 85 and 87 John St., New York.  
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
 John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.  
 F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
 Pierson & Co., 29 Broadway, New York.  
 Wm. H. Wallace & Co., 66 Broadway, New York.  
 Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Forgings, Steel—

Belden Machine Co., New Haven, Ct.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Billings & Spencer Co., Hartford, Ct.  
 Blakeslee Forging Co., Plantsville, Ct.  
 Braeburn Steel Co., Braeburn, Pa.  
 Canton Drop Forging & Mfg. Co., Canton, O.  
 Thomas D. Carpenter, Brooklyn, N. Y.  
 Chattanooga Car & Foundry Co., Chattanooga, Tenn.  
 Chicago Drop Forge & Foundry Co., Kensington, Ill.  
 E. D. Clapp Mfg. Co., Auburn, N. Y.  
 Cleveland City Forge & Iron Co., Cleveland, O.  
 Richard Eccles Co., Auburn, N. Y.  
 Fort Pitt Forge Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.  
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.  
 Keystone Drop Forge Works, Chester, Pa.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Lockhart Iron & Steel Co., Pittsburgh, Pa.  
 Melanes Steel Co., Corry, Pa.  
 Millersburg Fifth Wheel Co., Millersburg, Pa.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Page-Storms Drop Forge Co., Chicopee Falls, Mass.  
 Pittsburgh Mfg. Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh.  
 Strieby & Foote Co., Newark, N. J.  
 Thompson Drop Forge Co., Plantsville, Ct.  
 Titusville Forge Co., Titusville, Pa.  
 William Tod Co., Youngstown, O.  
 Vulcan Crucible Steel Co., Alliquippa, Pa.  
 J. H. Williams & Co., Brooklyn, N. Y.  
 Wyman & Gordon, Worcester, Mass.

MERCHANTS.

Denman & Davis, 85 and 87 John St., New York.  
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
 Homer F. Livermore, Boston, Mass.  
 Patriarche & Bell, 215 Pearl St., N. Y.  
 F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
 Pilling & Crane, Girard Bldg., Philadelphia, Pa.  
 Wm. H. Wallace & Co., 66 Broadway, New York.

Forgings, Steel, Special—

Billings & Spencer Co., Hartford, Ct.  
 Blakeslee Forging Co., Plantsville, Ct.  
 Canton Drop Forging & Mfg. Co., Canton, O.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Marine Hardware & Equipment Co., So. Portland, Me.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Strieby & Foote Co., Newark, N. J.

Fork and Spade Handles—  
 (See Handles, Fork, Spade, &c.)

Fork Brackets—

(See Brackets, Fork.)

Forks, Silver Plated—  
 (See Spoons and Forks, Silver Plated.)

Forks and Spoons, Iron—  
 (See Spoons and Forks, Iron.)

Forks, Baling Press—

American Fork & Hoe Co., Cleveland, O.  
 Iowa Farming Tool Co., Fort Madison, Ia.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

Forks, Barley or Header—

American Fork & Hoe Co., Cleveland, O.  
 Continental Tool Co., Frankfort, N. Y.  
 Iowa Farming Tool Co., Fort Madison, Ia.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

Forks, Coke and Coal—

American Fork & Hoe Co., Cleveland, O.  
 Continental Tool Co., Frankfort, N. Y.  
 Iowa Farming Tool Co., Fort Madison, Ia.  
 Osborn Mfg. Co., Cleveland, O.  
 Withington & Cooley Mfg. Co., Jackson, Mich.

**Forks, Corn, Silver Plated—**  
F. P. Pieggar & Son, New Haven, Ct.

**Forks, Cotton Seed—**  
American Fork & Hoe Co., Cleveland, O.

**Forks, Fish—**  
American Fork & Hoe Co., Cleveland, O.

**Forks, Fodder—**  
American Fork & Hoe Co., Cleveland, O.

**Forks, Hay, Horse—**  
Iowa Farming Tool Co., Fort Madison, Ia.

**Forks, Hay, Manure, Spading, &c.—**  
(See Haying Tools.)

**Forks, Hay Tedder—**  
Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

**Forks, Ice—**  
(See Harvesting Tools.)

**Forksides, Bicycle—**  
(See Bicycle Parts.)

**Forks, Kitchen—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

**Forks, Laminated—**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Forks, New York—**  
C. T. Williamson Wire Novelty Co., Newark, N. J.

**Forks, Ore—**  
(See also Kitchen Articles, Wire.)

**Forks, Scoop, Vegetable—**  
(See Scoop Forks, Vegetable.)

**Forks, Sluice—**  
American Fork & Hoe Co., Cleveland, O.

**Forks, Spoon, &c.—**  
Continental Tool Co., Frankfort, N. Y.

**Forks, Silver Plated—**  
Iowa Farming Tool Co., Fort Madison, Ia.

**Forks, Stone or Ballast—**  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Forks, Tanners—**  
American Fork & Hoe Co., Cleveland, O.

**Forks, Wood—**  
Continental Tool Co., Frankfort, N. Y.

**Forks, Wire—**  
Iowa Farming Tool Co., Fort Madison, Ia.

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Forks, Withington & Cooley Mfg. Co., Jackson, Mich.**

**Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.**

**Hilles & Jones Co., Wilmington, Del.**

**Long & Allstatter Co., Hamilton, O.**

**National Machinery Co., Tiffin, O.**

**Niagara Machine & Tool Works, Buffalo, N. Y.**

**Niles-Bement-Pond Co., 136-138 Liberty St., New York.**

**George A. Ohl, Newark, N. J.**

**Pittsburgh Mfg. Co., Pittsburgh, Pa.**

**George B. Bennett Co., Youngstown, O.**

**Standard Machinery Co., Providence, R. I.**

**Wallace Supply Co., 169 Jackson Boulevard, Chicago, Ill.**

**Waterbury Machine Co., Waterbury, Ct.**

**Watson-Stillman Co., 204-210 East 43d St., New York.**

**Wickes Bros., Saginaw, Mich.**

**Williams, White & Co., Moline, Ill.**

**MERCHANTS**

**Fairbanks Co., 416 Broome St., New York.**

**Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.**

**Forming and Blanking Sheet Metal—**  
(See Stamping Sheet Metal.)

**Forming Machines, Automatic—**

**Blake & Johnson, Waterbury, Ct.**

**R. W. Bliss Co., Brooklyn, N. Y.**

**Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.**

**Franklin Mfg. Co., New Haven, Ct.**

**Chas. Leffler & Co., Brooklyn, N. Y.**

**Pratt & Whitney Co., Hartford, Ct.**

**Standard Machinery Co., Providence, R. I.**

**Forming Machines, Barrel Hoop—**

**F. B. Shuster Co., New Haven, Ct.**

**Forming Machines, Sheet Metal—**

**Adriance Machine Works, Brooklyn, N. Y.**

**Blake & Johnson, Waterbury, Ct.**

**R. W. Bliss Co., Brooklyn, N. Y.**

**Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.**

**E. J. Manville Mach. Co., Waterbury, Ct.**

**Niagara Machine & Tool Works, Buffalo, N. Y.**

**J. M. Robinson Mfg. Co., Cincinnati, O.**

**F. B. Shuster Co., New Haven, Ct.**

**Standard Machinery Co., Providence, R. I.**

**Waterbury Machine Co., Waterbury, Ct.**

**Wickes Bros., Saginaw, Mich.**

**MERCHANTS**

**Bassett-Presley Co., Cleveland, O.**

**Forming Machines, Wire—**

**Adriance Machine Works, Brooklyn, N. Y.**

**Automatic Machine Co., Bridgeport, Ct.**

**Baird Machine Co., Oakville, Ct.**

**Blake & Johnson, Waterbury, Ct.**

**R. W. Bliss Co., Brooklyn, N. Y.**

**Hoefer Mfg. Co., Freeport, Ill.**

**Chas. Leffler & Co., Brooklyn, N. Y.**

**E. J. Manville Mach. Co., Waterbury, Ct.**

**A. H. Nilson Machine Co., Bridgeport, Ct.**

**F. B. Shuster Co., New Haven, Ct.**

**Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.**

**Waterbury Machine Co., Waterbury, Ct.**

**Forms, Dress and Coat—**

**Edward Darby & Sons, 233-236 Arch St., Philadelphia, Pa.**

**Ludlow-Saylor Wire Co., St. Louis, Mo.**

**Foundation and Sewer Gratings—**  
(See Gratings, Foundation, Sewer, &c.)

**Foundation Bolts—**  
(See Bolts, Foundation.)

**Foundry Cars, Facings, &c.**  
(See Cars, Facings, &c.)

**Foundry Plants—**  
Byram & Co. Inc., Detroit, Mich.  
Hill & Griffith Co., Cincinnati, O.  
New Era Mfg. Co., Kalamazoo, Mich.  
Northern Engineering Works, Detroit, Mich.

J. W. Paxson Co., Philadelphia, Pa.  
Pennsylvania Engineering Works, New Castle, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Harvey, Ill.

**Foundry Supplies—**  
Adams Co., Dubuque, Ia.  
Atlas Car & Mfg. Co., Cleveland, O.  
Brown & Sharpe Mfg. Co., Providence, R. I.

Byram & Co., Inc., Detroit, Mich.  
Case Mfg. Co., Columbus, O.  
Gould & Eberhardt, Newark, N. J.  
E. M. Haedrich, 311 1-2 Walnut St., Philadelphia, Pa.  
Hill & Griffith Co., Cincinnati, O.  
Maywood Foundry & Machine Co., Chamber of Commerce Bldg., Chicago, Ill.  
Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.  
Osborn Mfg. Co., Cleveland, O.  
J. W. Paxson Co., Philadelphia, Pa.  
Pennsylvania Engineering Works, New Castle, Pa.  
J. D. Smith Foundry Supply Co., Cleveland, O.  
Smooth-On Mfg. Co., Jersey City, N. J.  
Springfield Facing Co., Springfield, Mass.  
Whiting Foundry Equipment Co., Harvey, Ill.

**Fountains, Drinking—**  
Glen Mfg. Co., Ellwood City, Pa.  
Humphrey Machine Co., Keene, N. H.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
International Steel Post Co., St. Louis, Mo.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.

**Fountains, Park, Lawn, &c.—**  
Glen Mfg. Co., Ellwood City, Pa.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
International Steel Post Co., St. Louis, Mo.  
Stewart Iron Works, Cincinnati, O.

**Fountains, Soda—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

**Frames, Bag and Suit Case—**  
R. C. Jenkinson & Co., Newark, N. J.

**Frames, Binder—**  
Jones & Laughlins Steel Co., Pittsburgh, Pa.

**Frames, Bracket Saw—**  
Millers Falls Co., 28 Warren St., N. Y.

**Frames, Butcher Saw—**  
Diamond Saw & Stamping Works, Buffalo, N. Y.

**Frames, Cabinet and Turning Saw—**  
Henry Disston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.

**Frames, Card, Drawer—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Frames, Door and Window Screen—**

Maine Mfg. Co., Nashua, N. H.

**Frame Setters—**  
(See Setters, Frame or Angle.)

**Frames, Grindstone—**  
Athol Machine Co., Athol, Mass.  
Garvin Machine Co., Spring & Varick Sts., New York.

Howard Iron Works, Buffalo, N. Y.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Frames, Hack Saw—**  
E. C. Atkins & Co., Indianapolis, Ind.  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
Henry Disston & Sons, Philadelphia, Pa.  
Millers Falls Co., 28 Warren St., N. Y.  
Smith & Hemenway Co., 236 Broadway, New York.

L. S. Starrett Co., Athol, Mass.  
Union Hardware Co., Torrington, Ct.

**Frames, Mirror and Photograph, Metal—**  
Hubley Mfg. Co., Lancaster, Pa.

**Frames, Photograph, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Frames, Picture—**  
Sprague & Hathaway Co., West Somerville, Mass.

**Frames, Turning Saw—**  
Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Disston & Sons, Philadelphia, Pa.

**Frames, Wire Galvanizing or Tinning—**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Frames, Wood Saw—**  
Henry Disston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.  
Stover Mfg. Co., Freeport, Ill.

**Freezers, Ice Cream—**  
Dana & Co., Cincinnati, O.  
North Bros. Mfg. Co., Philadelphia, Pa.  
White Mountain Freezer Co., Nashua, N. H.

**Freezers, Ice Cream, Foot Power—**  
Slotkin & Fraglin, 210-212 Canal St., New York.

**Fret Saws—**  
(See Saws, Compass.)

**Frogs, Railroad—**  
(See Switches and Frogs, Railroad.)

**Fronts, Building, Iron—**  
(See Structural Material.)

**Fronts, Building, Sheet Iron—**

Berger Mfg. Co., Canton, O.  
Chattanooga Roofing & Foundry Co.,  
Chattanooga, Tenn.  
National Sheet Metal Roofing Co., Jersey  
City, N. J.

**Fruit Bowls—**

(See Bowls, Silver Plated.)

**Fruit Can Wax—**

(See Wax, Fruit Can.)

**Fruit Dishes—**

(See Dishes, Silver Plated.)

**Fry Pans—**

(See Pans, Fry.)

**Fuel Oil Burning Appliances—**

Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.

**Fuller Balls, Rubber—**

(See Balls, Fuller, Rubber.)

**Funnels, Charging—**

W. J. Clark Co., Salem, O.

**Furnace Charging Scales, Lamps—**

(See Scales, Lamps.)

**Furnace Feeders for Shavings—**

Stirling Blower & Pipe Mfg. Co., Hart-  
ford, Ct.

**Furnace Feeders for Shavings, Automatic—**

Stirling Blower & Pipe Mfg. Co., Hart-  
ford, Ct.

**Furnaces and Dryers, Galvanizing—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.

**Furnaces, Annealing—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
American Gas Furnace Co., 23 John St.,  
New York.  
Amsler Engineering Co., Pittsburgh, Pa.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Burns Hydro-Carbon Burner Co., Ft.  
Plain, N. Y.  
J. B. & J. M. Cornell, 239 11th Ave.,  
New York.  
Crosby Co., Buffalo, N. Y.  
Edward E. Erikson, Pittsburgh, Pa.  
Forster-Miller Engineering Co., Inc.,  
Pittsburgh, Pa.  
J. A. Herrick, Mutual Life Bldg., Phila-  
delphia, Pa.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Morgan Construction Co., Worcester, Mass.  
J. W. Paxson Co., Philadelphia, Pa.  
Wm. B. Pollock Co., Youngstown, O.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.  
Wm. Swindell & Bros., Pittsburgh, Pa.  
Turner, Vaughn & Taylor Co., Cuyahoga  
Falls, O.  
Waterbury Farrell Foundry & Machine  
Co., Waterbury, Ct.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Whiting Foundry Equipment Co., Har-  
vey, Ill.

**Furnaces, Annealing Lead—**

Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Turner, Vaughn & Taylor Co., Cuyahoga  
Falls, O.

**Furnaces, Blast—**

Amsler Engineering Co., Pittsburgh, Pa.  
Edward E. Erikson, Pittsburgh, Pa.  
Fischer Foundry & Machine Co., Pitts-  
burgh, Pa.  
Forster-Miller Engineering Co., Inc.,  
Pittsburgh, Pa.  
S. V. Huber & Co., Pittsburgh, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
G. W. McClure, Son & Co., Pittsburgh.  
Meehan Boiler & Construction Co., Low-  
ellville, O.  
Pennsylvania Engineering Works, New  
Castle, Pa.  
Wm. B. Pollock Co., Youngstown, O.  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh,  
Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Furnaces, Boiler—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Parson Mfg. Co., 320 Broadway, N. Y.

**Furnaces, Brass Melting—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Burns Hydro-Carbon Burner Co., Ft. Plain,  
N. Y.

Byram & Co., Inc., Detroit, Mich.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Lunkenheimer Co., Cincinnati, O.  
Northern Engineering Works, Detroit,  
Mich.  
S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., Philadelphia, Pa.  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.  
Wm. Swindell & Bros., Pittsburgh, Pa.  
Whiting Foundry Equipment Co., Har-  
vey, Ill.

**Furnaces, Brazing—**

American Gas Furnace Co., 23 John St.,  
New York.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.  
Turner Brass Works, 44 No. Franklin St.,  
Chicago, Ill.  
Waterbury Farrell Foundry & Machine  
Co., Waterbury, Ct.  
White Mfg. Co., 93 Michigan Ave., Chi-  
cago, Ill.

**Furnaces, Case Hardening—**

American Gas Furnace Co., 23 John St.,  
New York.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Burns Hydro-Carbon Burner Co., Ft.  
Plain, N. Y.  
Crosby Co., Buffalo, N. Y.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.

**Furnaces, Chain Heating—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
American Gas Furnace Co., 23 John St.,  
New York.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Turner, Vaughn & Taylor Co., Cuyahoga  
Falls, O.

**Furnaces, Corrugated Boil-  
er—**

**MERCHANTS.**  
Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.  
Mason G. Worth & Co., Real Estate  
Trust Bldg., Philadelphia, Pa.

**Furnaces, Crucible—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
American Gas Furnace Co., 23 John St.,  
New York.  
Amsler Engineering Co., Pittsburgh, Pa.  
Forster-Miller Engineering Co.,  
Pittsburgh, Pa.  
J. A. Herrick Mutual Life Bldg., Phil-  
adelphia, Pa.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Alex. Laughlin & Co., Pittsburgh, Pa.  
S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., Philadelphia, Pa.  
Wm. Swindell & Bros., Pittsburgh, Pa.

**Furnaces, Farmers' Boil-  
ing—**

A. Buch's Sons Co., Elizabethtown, Pa.  
**Furnaces, Forging—**  
Acme Machinery Co., Cleveland, O.  
American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Billings & Spencer Co., Hartford, Ct.  
Burns Hydro-Carbon Burner Co., Ft.  
Plain, N. Y.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.

**Furnaces, Fuel Oil—**

Burns Hydro-Carbon Burner Co., Ft.  
Plain, N. Y.

**Furnaces, Gas Annealing—**

American Gas Furnace Co., 23 John St.,  
New York.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.

**Furnaces, Gas Blast—**

Chicago Flexible Shaft Co., La Salle Ave.  
and Ontario St., Chicago, Ill.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.

**Furnaces, Gas, Brazing,  
Case Hardening, Chain  
Heating—**

American Gas Furnace Co., 23 John St.,  
New York.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.

**Furnaces, Gas, Crucible—**

American Gas Furnace Co., 23 John St.,  
New York.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.

**Furnaces, Gas Heated—**

Hess-Snyder Co., Massillon, O.

**Furnaces, Glass—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Amsler Engineering Co., Pittsburgh, Pa.

**Furnaces, Heating—**

Acme Machinery Co., Cleveland, O.  
American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Amsler Engineering Co., Pittsburgh, Pa.  
Curry & Vannan, Danville, Pa.  
Edward E. Erikson, Pittsburgh, Pa.  
Forster-Miller Engineering Co., Inc.,  
Pittsburgh, Pa.  
J. A. Herrick Mutual Life Bldg., Phil-  
adelphia, Pa.  
S. V. Huber & Co., Pittsburgh, Pa.  
Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Alex. Laughlin & Co., Pittsburgh, Pa.  
G. W. McClure, Son & Co., Pittsburgh,  
Pa.  
Morgan Construction Co., Worcester, Mass.  
Philadelphia Roll & Machine Co., 23d St.  
& Washington Ave., Philadelphia, Pa.  
Rockwell Engineering Co., 26 Cortlandt  
St., New York.  
S. E. Smythe Co., Pittsburgh, Pa.  
Wm. Swindell & Bros., Pittsburgh, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**Furnace Shovels—**

(See Shovels and Scoops, Furnace.)

**Furnaces, Lead Bath Tem-  
pering—**

Burns Hydro-Carbon Burner Co., Ft.  
Plain, N. Y.

**Furnaces, Malleable—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
Whiting Foundry Equipment Co., Harvey,  
Ill.

**Furnaces, Muffle—**

Burns Hydro-Carbon Burner Co., Ft.  
Plain, N. Y.

**Furnaces, Muffle and Cru-  
cible—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
American Gas Furnace Co., 23 John St.,  
New York.  
Amsler Engineering Co., Pittsburgh, Pa.  
Eimer & Amend, 205 3d Ave., New York.  
Forster-Miller Engineering Co., Inc.,  
Pittsburgh, Pa.

**Furnaces, Natural Gas—**

Kenworthy Engineering & Construction  
Co., Waterbury, Ct.  
J. W. Paxson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.

**Furnaces, Oil Melting—**

J. W. Paxson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.

**Furnaces, Open Hearth—**

American Furnace & Machine Co., Pitts-  
burgh, Pa.  
Amsler Engineering Co., Pittsburgh, Pa.  
Edward E. Erikson, Pittsburgh, Pa.  
Forster-Miller Engineering Co., Inc.,  
Pittsburgh, Pa.  
J. A. Herrick Mutual Life Bldg., Phil-  
adelphia, Pa.

- S. V. Huber & Co., Pittsburgh, Pa.  
 Julian Kennedy, Pittsburgh, Pa.  
 Walter Kennedy, Pittsburgh, Pa.  
 Kenworthy Engineering & Construction Co., Waterbury, Ct.  
 Alex. Laughlin & Co., Pittsburgh, Pa.  
 G. W. McClure, Son & Co., Pittsburgh.  
 Meehan Boiler & Construction Co., Lowellville, O.  
 J. W. Paxson Co., Philadelphia, Pa.  
 Pennsylvania Engineering Works, New Castle, Pa.  
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
 Wm. B. Pollock Co., Youngstown, O.  
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 S. R. Smythe Co., Pittsburgh, Pa.  
 Wm. Swindell & Bros., Pittsburgh, Pa.  
 Wellman-Seaver-Morgan Co., Cleveland, O.  
 Whiting Foundry Equipment Co., Harvey, Ill.
- MERCHANTS.**  
 McGeorge & Sons, Cleveland, O.
- Furnaces, Plumbers' and Tanners—**  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.  
 Niagara Machine & Tool Works, Buffalo, N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.  
 White Mfg. Co., 93 Michigan Ave., Chicago, Ill.
- Furnaces, Portable, Lead, Gravel, Tar, &c.—**  
 L. O. Koven & Bro., 50 Cliff St., N. Y.
- Furnaces, Puddling—**  
 American Furnace & Machine Co., Pittsburgh, Pa.  
 Curry & Vannan, Danville, Pa.  
 Alex. Laughlin & Co., Pittsburgh, Pa.  
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
 Wm. Swindell & Bros., Pittsburgh, Pa.
- Furnaces, Revolving Forge—**  
 National Machinery Co., Tiffin, O.
- Furnaces, Rivet—**  
 Browning Engineering Co., Cleveland, O.
- Furnaces, Roasting, Ore—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.
- Furnaces, Spiral and Elliptical Car Spring—**  
 Burns Hydro-Carbon Burner Co., Ft. Plain, N. Y.
- Furnaces, Tube Welding—**  
 American Furnace & Machine Co., Pittsburgh, Pa.  
 Amstel Engineering Co., Pittsburgh, Pa.  
 Forter-Miller Engineering Co., Inc., Pittsburgh, Pa.  
 J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.  
 Alex. Laughlin & Co., Pittsburgh, Pa.
- Furnaces, Warm Air—**  
 Hess-Snyder Co., Massillon, O.  
 West Side Foundry Co., Troy, N. Y.
- Furnaces, Water Jacket—**  
 Byram & Co., Detroit, Mich.
- Furnaces, Wire Brazing—**  
 Waterbury Machine Co., Waterbury, Ct.
- Furnaces, Wire Galvanizing—**  
 Rockwell Engineering Co., 26 Cortlandt St., New York.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Furnaces, Wire Tinning—**  
 Rockwell Engineering Co., 26 Cortlandt St., New York.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Furniture, Drafting Room—**  
 Keuffel & Esser Co., 127 Fulton St., N. Y.
- Furniture, Metal—**  
 J. B. & J. M. Cornell, 239 11th Ave., New York.
- Fuse—**  
 Ensign, Bickford & Co., Simsbury, Ct.  
 King Powder Co., Cincinnati, O.
- Fuse Plugs, Electric—**  
 Gilmore Electric Co., South Boston, Mass.
- Gadders—**  
 Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
 F. R. Patch Mfg. Co., Rutland, Vt.  
 Rand Drill Co., 128 Broadway, New York.
- Galley Sheets—**  
 (See Sheets, Galley.)
- Galvanized Angle, Bars, Channels, &c.—**  
 United Galvanizing Co., 525-529 Front St., Philadelphia, Pa.
- Galvanized Bolts—**  
 (See Bolts, Galvanized.)
- Galvanized Iron, Cornice, &c.—**  
 (See Cornice, &c., Galvanized Iron.)
- Galvanized Sheets—**  
 (See Sheets, Galvanized.)
- Galvanized Wire Guy Strand—**  
 A. Leschen & Sons Rope Co., St. Louis, Mo.
- Galvanized Wire Rope—**  
 A. Leschen & Sons Rope Co., St. Louis, Mo.
- Galvanized Wire Strand—**  
 (See Wires, Electrical.)
- Galvanizing—**  
 Avery Stamping Co., Cleveland, O.  
 Cleveland Galvanizing Works, Cleveland.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Marine Hardware & Equipment Co., So. Portland, Me.  
 Pleuger & Henger Mfg. Co., St. Louis, Mo.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Sidney Shepard & Co., Buffalo, N. Y.  
 United Galvanizing Co., 525-529 Front St., Philadelphia, Pa.  
 Wright Wire Co., Worcester, Mass.
- Galvanizing Flux—**  
 (See Tin, Phosphor and Silver Metal.)
- Galvanizing Machinery, Wire—**  
 Morgan Construction Co., Worcester, Mass.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Galvanizing Plants—**  
 Wm. B. Pollock Co., Youngstown, O.  
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

- MERCHANTS.**  
**F. R. Phillips & Sons Co.,** Harrison Bldg., Philadelphia, Pa.  
**Galvanizing, Process of—**  
**S. V. Huber & Co.,** Pittsburgh, Pa.  
**Game Bags, Traps—**  
 (See Bags, Traps.)  
**Gang Saws—**  
 (See Saws, Gang.)  
**Ganister—**  
**J. W. Paxson Co.,** Philadelphia, Pa.  
**Garbage Cans, Chutes—**  
 (See Cans, Chutes.)  
**Garden Hoes—**  
 (See Hoes, Garden, Field, Mortar, &c.)  
**Garden Implements—**  
**Bateman Mfg. Co.,** Glenloch, N. J.  
**Garden Lines, Rakes, Shears, &c.—**  
**Bateman Mfg. Co.,** Glenloch, N. J.  
**Garment Display Stands, Hooks and Eyes, Stand Bases—**  
 (See Stands, Hooks and Eyes, Bases.)  
**Garnet Paper—**  
 (See Papers, Sand, Garnet, &c.)  
**Gas and Electric Fixtures—**  
**Bridgeport Brass Co.,** Bridgeport, Ct.  
**General Electric Co.,** Schenectady, N. Y.  
**Gas Cocks—**  
 (See Plates, Hot.)  
**Gaskets and Rings, Rubber—**  
**H. O. Canfield,** Bridgeport, Ct.  
**Jenkins Bros.,** 71 John St., New York.  
**Whitman & Barnes Mfg. Co.,** Akron, O.  
**Gaskets, Corrugated Copper—**  
**Taunton Locomotive Mfg. Co.,** Taunton, Mass.  
**Gaskets, Iron—**  
**Smooth-On Mfg. Co.,** Jersey City, N. J.  
**Gasoline Engines, Generators, &c.—**  
 (See Engines, Generators, &c.)  
**Gasoline Gas and Vapor Lamps—**  
 (See Lamps.)  
**Gas Plant Machinery—**  
**Nazareth Foundry & Machine Co.,** Nazareth, Pa.  
**Ritter-Conley Mfg. Co.,** Pittsburgh, Pa.  
**Wellman-Seaver-Morgan Co.,** Cleveland, O.  
**R. D. Wood & Co.,** 400 Chestnut St., Philadelphia, Pa.  
**Gas Portables—**  
**Goodwin & Kintz Co.,** Winsted, Ct.  
**Gate Hangers, Hinges, Hooks, &c.—**  
 (See Hangers, Hinges, Hooks, &c.)  
**Gates, Automatic Hatch—**  
**Warsaw Elevator Co.,** Warsaw, N. Y.  
**Gates, Blast—**  
**American Blower Co.,** Detroit, Mich.  
**Wm. Bayley & Sons Co.,** Milwaukee, Wis.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Connorsville Blower Co.,** Connorsville, Ind.  
**Eynon-Evans Mfg. Co.,** 1307 Clearfield St., Philadelphia, Pa.  
**Miner & Peck Mfg. Co.,** New Haven, Ct.  
**S. Obermayer Co.,** Cincinnati, O.  
**J. W. Paxson Co.,** Philadelphia, Pa.  
**Stirling Blower & Pipe Mfg. Co.,** Hartford, Ct.  
**R. F. Sturtevant Co.,** Boston, Mass.  
**Wickes Bros.,** Saginaw, Mich.
- Gates, Electric and Cable Car—**  
**Donovan Wire & Iron Co.,** Toledo, O.  
**Gates, Extension—**  
**Estey Wire Works Co.,** 59 Fulton St., New York.  
**Ludlow-Saylor Wire Co.,** St. Louis, Mo.  
**Wright Wire Co.,** Worcester, Mass.  
**Gates, Fence—**  
 (See Fencing, Gates, &c.)  
**Gates, Oil and Molasses—**  
**S. Cheney & Son, Manlius, N. Y.**  
**Enterprise Mfg. Co.,** Philadelphia, Pa.  
**Charles Parker Co.,** Meriden, Ct.  
**Sargent & Co.,** 151 Leonard St., N. Y.  
**Taylor & Bessis Foundry Co.,** Cleveland.  
**Gates, Safety Elevator—**  
**Donovan Wire & Iron Co.,** Toledo, O.  
**Energy Elevator Co.,** 408 Cherry St., Philadelphia, Pa.  
**Salem Elevator Works, Salem, Mass.**  
**Gauge Boards, Marble and Wood—**  
**American Steam Gauge & Valve Mfg. Co.,** Boston, Mass.  
**Crosby Steam Gauge & Valve Co.,** Boston.  
**Gauge Cocks, Saws—**  
 (See Cocks, Saws.)  
**Gauges, Air Brake—**  
**American Steam Gauge & Valve Mfg. Co.,** Boston, Mass.  
**Crosby Steam Gauge & Valve Co.,** Boston.  
**Gauges, Altitude—**  
**American Steam Gauge & Valve Mfg. Co.,** Boston, Mass.  
**Ashton Valve Co.,** Boston, Mass.  
**Crosby Steam Gauge & Valve Co.,** Boston.  
**Gauges, Ammonia—**  
**American Steam Gauge & Valve Mfg. Co.,** Boston, Mass.  
**Ashton Valve Co.,** Boston, Mass.  
**Crosby Steam Gauge & Valve Co.,** Boston.  
**Gauges and Squares, Combined—**  
**Brown & Sharpe Mfg. Co.,** Providence, R. I.  
**H. H. Mayhew Co.,** Shelburne Falls, Mass.  
**Stanley Rule & Level Co.,** New Britain, Ct.  
**Gauges, Automobile—**  
**American Steam Gauge & Valve Mfg. Co.,** Boston, Mass.  
**Gauges, Bar Iron Limit—**  
**Pratt & Whitney Co.,** Hartford, Ct.  
**Gauges, Bit—**  
**Braunsdorf-Mueller Co.,** Elizabeth, N. J.  
**Millers Falls Co.,** 28 Warren St., N. Y.  
**Gauges, Blast—**  
**Byram & Co., Inc.,** Detroit, Mich.  
**J. W. Paxson Co.,** Philadelphia, Pa.  
**Gauges, Boiler Plate—**  
**Brown & Sharpe Mfg. Co.,** Providence, R. I.  
**Gauges, Bolt and Pipe—**  
**Wells Bros. Co.,** Greenfield, Mass.  
**Gauges, Butt and Rabbett—**  
**Chapin-Stephens Co.,** Pine Meadow, Ct.  
**Stanley Rule & Level Co.,** New Britain, Ct.  
**Tower & Lyon Co.,** 95 Chambers St., New York.  
**Gauges, Caliper—**  
**Athol Machine Co.,** Athol, Mass.  
**Brown & Sharpe Mfg. Co.,** Providence, R. I.



- Morse Twist Drill & Machine Co., New Bedford, Mass.  
 John M. Rogers Boat Gauge & Drill Works, Gloucester City, N. J.  
 L. S. Starrett Co., Athol, Mass.  
 J. H. Williams & Co., Brooklyn, N. Y.
- Gauges, Center—**  
 Athol Machine Co., Athol, Mass.  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
 L. S. Starrett Co., Athol, Mass.
- Gauges, Chisel—**  
 Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Circumference—**  
 L. S. Starrett Co., Athol, Mass.
- Gauges, Clapboard—**  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Combination—**  
 Billings & Spencer Co., Hartford, Ct.  
 Chapin-Stephens Co., Pine Meadow, Ct.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Goodell-Pratt Co., Greenfield, Mass.
- Gauges, Decimal Sheet Metal—**  
 Pratt & Whitney Co., Hartford, Ct.
- Gauges, Depth—**  
 Athol Machine Co., Athol, Mass.  
 Billings & Spencer Co., Hartford, Ct.  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Gould & Eberhardt, Newark, N. J.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
 J. T. Slocumb & Co., Providence, R. I.  
 L. S. Starrett Co., Athol, Mass.
- Gauges, Draft—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Gauges, Drill—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Cleveland Twist Drill Co., Cleveland, O.  
 Etna Mfg. Co., 253 Broadway, N. Y.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.  
 Standard Tool Co., Cleveland, O.  
 L. S. Starrett Co., Athol, Mass.
- Gauges, Gear Tooth—**  
 Boston Gear Works, Boston, Mass.  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Gould & Eberhardt, Newark, N. J.
- Gauges, Hem—**  
 Pelouze Scale & Mfg. Co., 118-132 W. Jackson Boulevard, Chicago, Ill.
- Gauges, Hydraulic—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Ashton Valve Co., Boston, Mass.  
 Crane Co., Chicago, Ill.  
 Crosby Steam Gauge & Valve Co., Boston.  
 Watson-Stillman Co., 204-210 East 43d St., New York.
- Gauges, Jointer—**  
 Millers Falls Co., 28 Warren St., N. Y.
- Gauges, Lumber—**  
 Lufkin Rule Co., Saginaw, Mich.
- Gauges, Marking, &c.—**  
 Billings & Spencer Co., Hartford, Ct.  
 Chapin-Stephens Co., Pine Meadow, Ct.  
 Henry Disston & Sons, Philadelphia, Pa.
- Goodell-Pratt Co., Greenfield, Mass.  
 Otis A. Smith, Rockfall, Ct.  
 Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Master Car Builders—**  
 Pratt & Whitney Co., Hartford, Ct.
- Gauges, Mercury—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Edward Brown, 311 Walnut St., Philadelphia, Pa.
- Gauges, Metric—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 John M. Rogers Boat Gauge & Drill Works, Gloucester City, N. J.
- Gauges, Micrometer—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 J. T. Slocumb & Co., Providence, R. I.  
 L. S. Starrett Co., Athol, Mass.
- Gauges, Nail—**  
 Henry Disston & Sons, Philadelphia, Pa.
- Gauges, Ordinance—**  
 Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Plane—**  
 Goodell-Pratt Co., Greenfield, Mass.
- Gauges, Planer—**  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.
- Gauges, Plug and Ring—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.  
 Pratt & Whitney Co., Hartford, Ct.  
 John M. Rogers Boat Gauge & Drill Works, Gloucester City, N. J.
- Gauges, Pocket Caliper—**  
 Billings & Spencer Co., Hartford, Ct.
- Gauges, Pressure—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Ashton Valve Co., Boston, Mass.  
 Crosby Steam Gauge & Valve Co., Boston.  
 B. F. Sturtevant Co., Boston, Mass.
- Gauges, Pressure Record- ing—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Bristol Co., Waterbury, Ct.
- Gauges, Pyrometer, Steam—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Ashton Valve Co., Boston, Mass.  
 Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Railroad Track—**  
 Sheffield Car Co., Three Rivers, Mich.
- Gauges, Recording—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Ashton Valve Co., Boston, Mass.  
 Bristol Co., Waterbury, Ct.  
 Crosby Steam Gauge & Valve Co., Boston.  
 Helios-Upton Co., Peabody, Mass.
- Gauges, Recording, Light Pressure—**  
 Uehling-Decker Co., Passaic, N. J.
- Gauges, Recording, Light Vacuum—**  
 Uehling-Decker Co., Passaic, N. J.
- Gauges, Rolling Mill—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Haines Gauge Co., Provident Bldg., Philadelphia, Pa.

**Gauges, Rule—**  
Tower & Lyon Co., 95 Chambers St., New York.

**Gauges, Saw Tooth—**  
E. C. Atkins & Co., Indianapolis, Ind.  
Henry Diaston & Sons, Philadelphia, Pa.  
Kilborn & Bishop Co., New Haven, Ct.

**Gauges, Scratch, Surface, &c.—**

Billings & Spencer Co., Hartford, Ct.  
Springfield Machine Screw Co., Springfield, Mass.

L. S. Starrett Co., Athol, Mass.

**Gauges, Screw Pitch—**  
Athol Machine Co., Athol, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Pratt & Whitney Co., Hartford, Ct.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Gauges, Sheet Metal—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

**Gauges, Shrinkage—**  
Pedrick & Ayer Co., 87 Liberty St., N. Y.

**Gauges, Snap—**  
Billings & Spencer Co., Hartford, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cleveland Twist Drill Co., Cleveland, O.  
John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

**Gauges, Stair—**

L. S. Starrett Co., Athol, Mass.

**Gauges, Standard Test—**  
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston.

**Gauges, Steam and Vacuum—**

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

Bristol Co., Waterbury, Ct.

Crosby Steam Gauge & Valve Co., Boston.

Lunkenheimer Company, Cincinnati, O.

**Gauges, Surface—**  
Athol Machine Co., Athol, Mass.

Billings & Spencer Co., Hartford, Ct.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Brown & Sharpe Mfg. Co., Providence, R. I.

Hoggson & Pettis Mfg. Co., New Haven, Ct.

Ives Mfg. Corporation, Bridgeport, Ct.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Gauges, Thickness—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

**Gauges, Tide—**  
Keuffel & Esser Co., 127 Fulton St., New York.

**Gauges, Twist Drill—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

**Gauges, Vacuum Recording—**

Bristol Co., Waterbury, Ct.

**Gauges, Water—**  
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

Crane Co., Chicago, Ill.

Crosby Steam Gauge & Valve Co., Boston.

Fairbanks Co., 416 Broome St., New York.

Jenkins Bros., 71 John St., New York.

Lunkenheimer Company, Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

E. W. Vanduzen Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

**Gauges, Water Level, Recording—**

Bristol Co., Waterbury, Ct.

Keuffel & Esser Co., 127 Fulton St., New York.

**Gauges, Wire—**  
E. C. Atkins & Co., Indianapolis, Ind.

Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Diaston & Sons, Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Standard Tool Co., Cleveland, O.

L. S. Starrett Co., Athol, Mass.

Wright Wire Co., Worcester, Mass.

**Gavels—**

E. B. Estes & Sons, 45-47 John St., N. Y.

**Gear Blanks, Cutters, Planers—**  
(See Blanks, Cutters, Planers.)

**Gear Blanks, Rawhide—**  
New Process Raw Hide Co., Syracuse, N. Y.

**Gear Cutting—**

Black & Johnson, Waterbury, Ct.

Blount & Lovell, Boston, Mass.

Boston Gear Works, Boston, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Case Mfg. Co., Columbus, O.

Earle Gear & Machine Co., Oxford and Mascher Sts., Philadelphia, Pa.

Fawcett Machine Co., Pittsburgh, Pa.

Foster-Kimball Machine Co., Chicago, Ill.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

Edwin Harrington, Son & Co., Philadelphia, Pa.

New Process Raw Hide Co., Syracuse, N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Pratt & Whitney Co., Hartford, Ct.

Standard Machinery Co., Providence, R. I.

Van Dorn & Dutton Co., Cleveland, O.

W. A. Wilson Machine Co., Rochester, N. Y.

**Gear Cutting Attachments for Lathes—**

W. C. Young Mfg. Co., Worcester, Mass.

**Gear Cutting Attachments for Milling Machines—**

Brown & Sharpe Mfg. Co., Providence, R. I.

**Gear Cutting Machines—**

American Watch Tool Co., Waltham, Mass.

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

E. W. Bliss Co., Brooklyn, N. Y.

**Gong Bells—**

(See Bells, Gong.)

**Gong—**

American Tube &amp; Stamping Co., Bridgeport, Ct.

Cheswick Mfg. Co., Cheswick, Pa.

Gong Bell Mfg. Co., East Hampton, Ct.

Starr Bros. Bell Co., East Hampton, Ct.

Wallace Supply Co., 169 Jackson Boulevard, Chicago, Ill.

**Goose, Tailors—**

Blacklock Foundry, So. Pittsburg, Tenn.

**Gouges, Tanged, Socket—**

(See Chisels and Gouges.)

**Governors, Engine—**

Lovegrove &amp; Co., 143-145 N. Third St., Philadelphia, Pa.

**Governors, Pump—**

Mason Regulator Co., Boston, Mass.

**Governors, Tank—**

Mason Regulator Co., Boston, Mass.

**Grabs, Rafter—**

(See Grapples, Rafter.)

**Graders, Road—**

(See Levelers and Graders, Road.)

**Gradometers for Measuring****Grade of Hills—**

Adams Co., Dubuque, Ia.

**Graduated Scales—**

(See Scales, Graduated.)

**Graduating Machine, Universal—**

Springfield Machine Tool Co., Springfield, Ohio.

**Grain Cradles, Elevators,****Scales, Scoops—**

(See Cradles, Elevators, Scales, Scoops.)

**Grain Handling Machinery—**

H. W. Caldwell &amp; Son Co., Western Ave.

and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Dodge Mfg. Co., Mishawaka, Ind.

Jeffrey Mfg. Co., Columbus, O.

Poole Engineering &amp; Machine Co., Baltimore, Md.

**Granaries, Portable—**

W. J. Adam, Joliet, Ill.

**Granite Drills—**

(See Chisels and Drills.)

**Grape Hoes—**

(See Hoes, Grape.)

**Graphite—**

Geo. G. Blackwell, Sons &amp; Co., The Albany, Liverpool, England.

Jos. Dixon Crucible Co., Jersey City, N. J.

Hill &amp; Griffith Co., Cincinnati, O.

McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

S. Obermayer Co., Cincinnati, O.

Henry W. Peabody &amp; Co., 17 State St., New York.

J. D. Smith Foundry Supply Co., Cleveland, O.

Springfield Facing Co., Springfield, Mass.

**Graphite Metal, Cool Running—**

Cool Running Graphite Metal Co., Cincinnati, O.

**Grapples, Ice—**

(See Ice Harvesting Tools.)

**Grapples, Rafter—**

Bethlehem Foundry &amp; Machine Co., So. Bethlehem, Pa.

F. E. Myers &amp; Bro., Ashland, O.

Ner Mfg. Co., Canton, O.

J. E. Porter Co., Ottawa, Ill.

Stowell Mfg. &amp; Foundry Co., South Milwaukee, Wis.

**Grappling Irons—**

(See Irons, Grappling.)

**Grass Catchers and Collectors—**

(See Catchers, Grass.)

**Grate Bars—**

E. R. Allen Foundry Co., Corning, N. Y.

Bancroft &amp; Co., Drexel Bldg., Philadelphia, Pa.

Wm. Bayley &amp; Sons Co., Milwaukee, Wis.

Bethlehem Foundry &amp; Machine Co., South Bethlehem, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Levering Bros., Baltimore, Md.

Logan Mfg. Co., Phoenixville, Pa.

Nazareth Foundry &amp; Machine Co., Nazareth, Pa.

George B. Sennett Co., Youngstown, O.

Southern Engine &amp; Boiler Works, Jackson, Tenn.

Stowell Mfg. &amp; Foundry Co., So. Milwaukee, Wis.

Wickes Bros., Saginaw, Mich.

**Grate Bars, Rocking—**

George B. Sennett Co., Youngstown, O.

**Grate Bars, Shaking—**

Bancroft &amp; Co., Drexel Bldg., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

**Grate Guards—**

(See Guards, Grate.)

**Graters, Corn—**

Henry Disston &amp; Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

**Graters, Horse Radish,****&c.—**

Enterprise Mfg. Co., Philadelphia, Pa.

**Graters, Nutmeg—**

Caldwell Mfg. Co., Rochester, N. Y.

**Grates, Extension—**

(See Stove Repairs.)

**Grates, Mantel—**

Blacklock Foundry, So. Pittsburg, Tenn.

Chattanooga Roofing &amp; Foundry Co., Chattanooga, Tenn.

Murdock Corporation, Boston, Mass.

**Grates, Parlor Gas—**

Schneider &amp; Trenkamp Div., Am. Stove Co., Cleveland, O.

**Grates, Rocking and Dumping—**

Wickes Bros., Saginaw, Mich.

**Grates, Shaking—**

E. R. Allen Co., Corning, N. Y.

**Grating, Area—**

(See Iron Work, Builders'.)

**Gratings, Foundation,****Sewer, &c.—**

Wm. Bayley &amp; Sons Co., Milwaukee, Wis.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

John C. Kupferle, St. Louis, Mo.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

**Gravel Furnaces—**

(See Furnaces, Portable, &amp;c.)

**Grease, Axle—**

Jos. Dixon Crucible Co., Jersey City, N. J.

**Grease, Gun—**

J. Stevens Arms &amp; Tool Co., Chicopee Falls, Mass.

**Grease, Waterproof—**

Jos. Dixon Crucible Co., Jersey City, N. J.

**Grease, Wire Rope—**  
Broderick & Bascom Rope Co., St. Louis, Mo.

**Greenhouses, Iron Framed—**  
Lord & Burnham Co., Irvington-on-Hudson, N. Y.

**Griddles, Cake—**  
Adams Co., Dubuque, Ia.  
S. Cheney & Son, Manlius, N. Y.

**Griddles, Soapstone—**  
Pike Mfg. Co., Pike, N. H.

**Grilles, Iron—**  
(See Iron and Brass, Ornamental.)

**Grinders' and Polishers' Supplies—**

Bridgeport Emery Wheel Mfg. Co., Bridgeport, Ct.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Carborundum Co., Niagara Falls, N. Y.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Cutter, Wood & Stevens Co., Boston, Mass.

Diamond Machine Co., Providence, R. I.

Hanson & Van Winkle Co., Newark, N. J.

Northampton Emery Wheel Co., Leeds, Mass.

Norton Emery Wheel Co., Worcester, Mass.

Zucker & Levett & Loeb Co., 525-530 West 25th St., New York.

**Grinders, Bench—**  
J. C. Blount & Co., Everett, Mass.

Bridgeport Emery Wheel Mfg. Co., Bridgeport, Ct.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Builders' Iron Foundry, Providence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Diamond Machine Co., Providence, R. I.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Hisey-Wolf Machine Co., Cincinnati, O.

Norton Emery Wheel Co., Worcester, Mass.

J. E. Porter Co., Ottawa, Ill.

Pratt & Whitney Co., Hartford, Ct.

Rock River Machine Co., Janesville, Wis.

Slotkin & Praglin, 219 Canal St., N. Y.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Vitrified Wheel Co., Westfield, Mass.

Washburn Shops, Worcester, Mass.

Webster & Perks Tool Co., Springfield, O.

**MERCHANTS.**  
American Emery Wheel Works, Providence, R. I.

Brown-Wales Co., Boston, Mass.

Fairbanks Co., 416 Broome St., New York.

J. R. Vandeyck Co., 8 Dey St., New York.

**Grinders, Car Wheel—**  
Springfield Mfg. Co., Bridgeport, Ct.

**Grinders, Chisel—**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Millers Falls Co., 28 Warren St., N. Y.

Union Mfg. & Specialty Co., Buffalo, N. Y.

**Grinders, Circular Saw—**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

J. R. Vandeyck Co., 8 Dey St., New York.

**Grinders, Cook—**  
Pratt & Whitney Co., Hartford, Ct.

**Grinders, Cup, Cone and Hub—**

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.

Diamond Machine Co., Providence, R. I.

Pratt & Whitney Co., Hartford, Ct.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

**Grinders, Cutter—**  
Adams Co., Dubuque, Ia.

Automatic Machine Co., Greenfield, Mass.

Becker-Brinard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Cincinnati Milling Machine Co., Cincinnati, O.

Cutter, Wood & Stevens Co., Boston, Mass.

Diamond Machine Co., Providence, R. I.

Garvin Machine Co., Spring & Varick Sts., New York.

Gould & Eberhardt Co., Newark, N. J.

Greenfield Machine Co., Greenfield, Mass.

Heald Machine Co., Worcester, Mass.

Hisey-Wolf Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Norton Emery Wheel Co., Worcester, Mass.

Pratt & Whitney Co., Hartford, Ct.

J. R. Vandeyck Co., 8 Dey St., New York.

**MERCHANTS.**  
George E. Affleck, 109 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

**Grinders, Disc—**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Heald Machine Co., Worcester, Mass.

**Grinders, Drill—**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Cleveland Twist Drill Co., Cleveland, O.

Diamond Machine Co., Providence, R. I.

Garvin Machine Co., Spring & Varick Sts., New York.

Heald Machine Co., Worcester, Mass.

Landis Tool Co., Waynesboro, Pa.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Norton Emery Wheel Co., Worcester, Mass.

Wm. Sellers & Co. (Inc.) Philadelphia, Pa.

Standard Tool Co., Cleveland, O.

Washburn Shops, Worcester, Mass.

Wilmarth & Morman Co., Grand Rapids, Mich.

**MERCHANTS.**  
American Emery Wheel Works, Providence, R. I.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

J. R. Vandeyck Co., 8 Dey St., New York.

Vitrified Wheel Co., Westfield, Mass.

**Grinders, Electrically Driven—**  
Bridgeport Emery Wheel Mfg. Co., Bridgeport, Ct.

**Bridgeport Safety Emery Wheel Co.,**  
Bridgeport, Ct.  
**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Heald Machine Co.,** Worcester, Mass.  
**Hisey-Wolf Machine Co.,** Cincinnati, O.  
**Northern Electrical Mfg. Co.,** Madison, Wis.

**Stow Flexible Shaft Co.,** 26th and Callowhill Sts., Philadelphia, Pa.

**Grinders, Foot and Hand Power—**

**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Grinders, Foundry Sprue—**  
**Adams Co.,** Dubuque, Ia.

**Grinders, Glue—**  
**Blanchard Machine Co.,** Boston, Mass.

**Grinders, Knife and Scissors—**

**American Emery Wheel Works,** Providence, R. I.

**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Grinders, Laboratory, Ore—**  
**McKenna Bros. Brass Co.,** Pittsburgh, Pa.

**Grinders, Lathe—**  
**Chicago Flexible Shaft Co.,** 124 La Salle Ave., Chicago, Ill.

**Diamond Machine Co.,** Providence, R. I.

**Gisholt Machine Co.,** Madison, Wis.

**Niles-Bement-Pond Co.,** 136-138 Liberty St., New York.

**Springfield Mfg. Co.,** Bridgeport, Ct.

**Grinders, Lathe and Grinder—**

**J. L. Osgood,** Buffalo, N. Y.

**Grinders, Lathe Center—**  
**Chicago Flexible Shaft Co.,** 124 La Salle Ave., Chicago, Ill.

**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Diamond Machine Co.,** Providence, R. I.

**Gisholt Machine Co.,** Madison, Wis.

**Grant Mfg. & Machine Co.,** Bridgeport, Ct.

**Heald Machine Co.,** Worcester, Mass.

**Hisey-Wolf Machine Co.,** Cincinnati, O.

**Niles-Bement-Pond Co.,** 136-138 Liberty St., New York.

**Patterson Tool & Supply Co.,** Dayton, O.

**Pratt & Whitney Co.,** Hartford, Ct.

**Dwight Slate Machine Co.,** Hartford, Ct.

**Stow Flexible Shaft Co.,** 26th & Callowhill Sts., Philadelphia, Pa.

**Grinders, Lawn Mower—**  
**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Pike Mfg. Co.,** Pike, N. H.

**Root Bros. Co.,** Plymouth, O.

**Springfield Mfg. Co.,** Bridgeport, Ct.

**Grinders, Mowing Machine Knife—**  
**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Grinders, Planer Knife—**  
**Bridgeport Emery Wheel Mfg. Co.,** Bridgeport, Ct.

**Bridgeport Safety Emery Wheel Co.,** Bridgeport, Ct.

**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Diamond Machine Co.,** Providence, R. I.

**Northampton Emery Wheel Co.,** Leeds, Mass.  
**S. A. Woods Machine Co.,** So. Boston.

# MERCHANTS.

**Fairbanks Co.,** 416 Broome St., New York.

**Sterling Emery Wheel Mfg. Co.,** Tiffin, O.

**Grinders, Plow Share—**  
**Bridgeport Emery Wheel Mfg. Co.,** Bridgeport, Ct.

**Bridgeport Safety Emery Wheel Co.,** Bridgeport, Ct.

**Webster & Perks Tool Co.,** Springfield, O.

**Grinders, Portable—**  
**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Diamond Machine Co.,** Providence, R. I.

**Hisey-Wolf Machine Co.,** Cincinnati, O.

**Niles-Bement-Pond Co.,** 136-138 Liberty St., New York.

**Slotkin & Praglin,** 210 Canal St., N. Y.

**Stow Flexible Shaft Co.,** 26th & Callowhill Sts., Philadelphia, Pa.

**Stow Mfg. Co.,** Binghamton, N. Y.

# MERCHANTS.

**Fairbanks Co.,** 416 Broome St., New York.

**Vitrified Wheel Co.,** Westfield, Mass.

**Grinders, Punch and Die—**  
**Springfield Mfg. Co.,** Bridgeport, Ct.

**Grinders, Reamer—**  
**Automatic Machine Co.,** Greenfield, Mass.

**Brown & Sharpe Mfg. Co.,** Providence, R. I.

**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Cincinnati Milling Machine Co.,** Cincinnati, O.

**Diamond Machine Co.,** Providence, R. I.

**Garvin Machine Co.,** Spring & Varick Sts., New York.

**Greenfield Machine Co.,** Greenfield, Mass.

**Heald Machine Co.,** Worcester, Mass.

**Hisey-Wolf Machine Co.,** Cincinnati, O.

**Landis Tool Co.,** Waynesboro, Pa.

**Niles-Bement-Pond Co.,** 136-138 Liberty St., New York.

**Pratt & Whitney Co.,** Hartford, Ct.

# MERCHANTS.

**Brown & Zortman Machinery Co.,** Pittsburgh, Pa.

**Fairbanks Co.,** 416 Broome St., New York.

**Hill, Clarke & Co.,** Boston, Mass.

**Grinders, Roll—**  
**Case Mfg. Co.,** Columbus, O.

**Farrel Foundry & Machine Co.,** Ansonia, Ct.

**E. Harrington, Son & Co.,** Philadelphia.

**Mesta Machine Co.,** Pittsburgh, Pa.

**Springfield Mfg. Co.,** Bridgeport, Ct.

**Grinders, Rotary Shear—**  
**Springfield Mfg. Co.,** Bridgeport, Ct.

**Grinders, Section, Mower and Reaper—**  
**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**Whitman & Barnes Mfg. Co.,** Akron, O.

**Grinders, Shafting—**  
**Springfield Mfg. Co.,** Bridgeport, Ct.

**Grinders, Sickle—**  
**Chicago Wheel & Mfg. Co.,** 39-45 W. Randolph St., Chicago, Ill.

**J. E. Porter Co.,** Ottawa, Ill.

**Grinders, Surface—**  
**Chas. H. Besly & Co.,** 10 & 12 N. Canal St., Chicago, Ill.

**Bignall & Keeler Mfg. Co.,** Edwardsville, Ill.

**Blake & Johnston,** Waterbury, Ct.

**Bridgeport Emery Wheel Mfg. Co.,** Bridgeport, Ct.

Bridgeport Safety Emery Wheel Co.,  
Bridgeport, Ct.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Builders' Iron Foundry, Providence, R. I.  
Chicago Wheel & Mfg. Co., 39-45 W.  
Randolph St., Chicago, Ill.  
Diamond Machine Co., Providence, R. I.  
Garvin Machine Co., Spring and Varick  
Sts., New York.  
Goddard Machine Co., Holyoke, Mass.  
Grant Mfg. & Machine Co., Bridgeport,  
Ct.  
Hisey-Wolf Machine Co., Cincinnati, O.  
Landis Tool Co., Waynesboro, Pa.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Wm. Sellers & Co. (Inc.), Philadelphia.  
Springfield Mfg. Co., Bridgeport, Ct.  
Wilmarth & Morman Co., Grand Rapids,  
Mich.

**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
J. R. Vandyck Co., 8 Dey St., New York.  
**Grinders, Swing Frame—**  
Bridgeport Emery Wheel Mfg. Co., Bridge-  
port, Ct.  
Bridgeport Safety Emery Wheel Co.,  
Bridgeport, Ct.  
Cutter, Wood & Stevens Co., Boston,  
Mass.  
Diamond Machine Co., Providence, R. I.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
Sterling Emery Wheel Mfg. Co., Tiffin, O.

**Grinders, Tool—**  
R. F. Barnes Co., Rockford, Ill.  
W. F. & J. Barnes Co., Rockford, Ill.  
H. G. Barr, Worcester, Mass.  
Blake & Johnston, Waterbury, Ct.  
J. G. Blount & Co., Everett, Mass.  
Bridgeport Emery Wheel Mfg. Co., Bridge-  
port, Ct.  
Bridgeport Safety Emery Wheel Co.,  
Bridgeport, Ct.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Builders' Iron Foundry, Providence, R. I.  
Chicago Wheel & Mfg. Co., 39-45 W.  
Randolph St., Chicago, Ill.  
Cincinnati Milling Machine Co., Cincin-  
nati, O.  
Cutaway Harrow Co., Higganum, Ct.  
Diamond Machine Co., Providence, R. I.  
Falkenau-Sinclair Mach. Co., 109 N. 22d  
St., Philadelphia, Pa.  
Garvin Machine Co., Spring and Varick  
Sts., New York.  
Gisholt Machine Co., Madison, Wis.  
Gould & Eberhart, Newark, N. J.  
Heald Machine Co., Worcester, Mass.  
Hisey-Wolf Machine Co., Cincinnati, O.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Northampton Emery Wheel Co., Leeds,  
Mass.  
Norton Emery Wheel Co., Worcester,  
Mass.  
Pike Mfg. Co., Pike, N. H.  
Pratt & Whitney Co., Hartford, Ct.  
Wm. Sellers & Co. (Inc.), Philadelphia.  
Dwight Slate Machine Co., Hartford, Ct.  
Slotkin & Praglin, 210 Canal St., N. Y.  
Springfield Mfg. Co., Bridgeport, Ct.

Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Union Mfg. & Specialty Co., Buffalo,  
N. Y.  
Washburn Shops, Worcester, Mass.  
Westler & Perks Tool Co., Springfield,  
O.  
Wilmarth & Morman Co., Grand Rapids,  
Mich.

**MERCHANTS.**

Brown & Zortman Machinery Co., Pitts-  
burgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
J. R. Vandyck Co., 8 Dey St., New York.  
Vitrified Wheel Co., Westfield, Mass.

**Grinders, Universal—**  
Bridgeport Emery Wheel Mfg. Co., Bridge-  
port, Ct.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Cincinnati Milling Machine Co., Cincin-  
nati, O.  
Garvin Machine Co., Spring and Varick  
Sts., New York.  
Gisholt Machine Co., Madison, Wis.  
Goddard Machine Co., Holyoke, Mass.  
Greenfield Machine Co., Greenfield, Mass.  
Landis Tool Co., Waynesboro, Pa.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Norton Emery Wheel Co., Worcester,  
Mass.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
**Grinding Machines—**  
American Shearer Mfg. Co., Nashua,  
N. H.  
E. C. Atkins & Co., Indianapolis, Ind.  
Chas. H. Bealy & Co., 10-12 No. Canal  
St., Chicago, Ill.  
Bicknell Hardware Co., Janesville, Wis.  
Blake & Johnston, Waterbury, Ct.  
Bridgeport Emery Wheel Mfg. Co., Bridge-  
port, Ct.  
Bridgeport Safety Emery Wheel Co.,  
Bridgeport, Ct.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Builders' Iron Foundry, Providence, R. I.  
Chicago Wheel & Mfg. Co., 39-45 W.  
Randolph St., Chicago, Ill.  
Cincinnati Milling Machine Co., Cincin-  
nati, O.  
Cutter, Wood & Stevens Co., Boston,  
Mass.  
Diamond Machine Co., Providence, R. I.  
Henry Disston & Sons, Philadelphia, Pa.  
Dodge Mfg. Co., Mishawaka, Ind.  
Espin-Lucas Machine Works, Broad and  
Noble Sts., Philadelphia, Pa.  
Garvin Machine Co., Spring and Varick  
Sts., New York.  
Gisholt Machine Co., Madison, Wis.  
Goddard Machine Co., Holyoke, Mass.  
Goodell-Pratt Co., Greenfield, Mass.  
L. H. Goodnow Foundry Co., Fitchburg,  
Mass.  
Grant Mfg. & Machine Co., Bridgeport,  
Ct.  
Greenfield Machine Co., Greenfield, Mass.  
Hannon & Finton, Springfield, Mass.  
Hannon & Van Winkle Co., Newark, N. J.  
Hisey-Wolf Machine Co., Cincinnati, O.  
Kimball Bros. & Sprague, Brockton,  
Mass.  
Landis Tool Co., Waynesboro, Pa.

H. J. Miller's Sons, Bridgewater, Mass.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.  
Northampton Emery Wheel Co., Leeds,  
Mass.

Norton Emery Wheel Co., Worcester,  
Mass.  
Patterson Tool & Supply Co., Dayton, O.  
Henry Perkins Co., Bridgewater, Mass.  
Pratt & Whitney Co., Hartford, Ct.  
Richard Mfg. Co., Bloomsburgh, Pa.  
Rock River Machine Co., Janesville, Wis.  
Safety Emery Wheel Co., Springfield, O.  
Dwight Slate Machine Co., Hartford, Ct.  
Slotkin & Praglin, 210 Canal St., N. Y.  
So. Pittsburgh Iron Works, Claysville, Pa.  
Springfield Mfg. Co., Bridgeport, Ct.  
Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Stow Mfg. Co., Binghamton, N. Y.  
Vitrified Wheel Co., Westfield, Mass.  
Washburn Shops, Worcester, Mass.  
Webster & Perks Tool Co., Springfield, O.  
Wilmarth & Morman Co., Grand Rapids,  
Mich.

S. A. Woods Machine Co., So. Boston.  
Zucker & Levett & Loeb Co., 526-530 West  
25th St., New York.

#### MERCHANTS.

George E. Atteck, 107 Liberty St., N. Y.  
American Emery Wheel Works, Provi-  
dence, R. I.  
Baird Machinery Co., Pittsburgh, Pa.  
Brown-Wales Co., Boston, Mass.  
J. H. Dawson Machinery Co., 39-41 S.  
Canal St., Chicago, Ill.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Manning, Maxwell & Moore, 85 Liberty  
St., New York.  
Marshall & Huchart Machinery Co., 62-  
64 So. Canal St., Chicago, Ill.  
McDowell, Stocker & Co., 59 So. Canal  
St., Chicago, Ill.  
Northern Machinery Co., Minneapolis,  
Minn.  
Prentiss Tool & Supply Co., 115 Liberty  
St., New York.  
Frank Toomey, 127-131 No. 3d St., Phila-  
delphia, Pa.  
J. R. Vandeyck Co., 8 Dey St., New York.

#### Grinding Machines, Bush-

ing—  
Grant Mfg. & Machine Co., Bridgeport,  
Ct.

Landis Tool Co., Waynesboro, Pa.  
Pratt & Whitney Co., Hartford, Ct.

#### Grinding Wheels— (See Wheels, Grinding.)

**Grindstone Boxes—**  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

**Grindstone Fixtures—**  
Cleveland Stone Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

Susquehanna Casting Co., Wrightsville,  
Pa.  
Wilcox Mfg. Co., Aurora, Ill.

Wrightsville Hardware Co., Wrightsville,  
Pa.

**Grindstones, Family—**  
Cleveland Stone Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
Millers Falls Co., 28 Warren St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pike Mfg. Co., Pike, N. H.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.

**Grindstones, Mounted—**  
Cleveland Stone Co., Cleveland, O.  
Niles-Bement-Pond Co., 136-138 Liberty  
St., New York.

Whitman & Barnes Mfg. Co., Akron, O.  
Wilcox Mfg. Co., Aurora, Ill.

**Grindstones, Razor—**  
Pike Mfg. Co., Pike, N. H.

**Grindstones, Unmounted—**  
Atlantic Grindstone Co., Providence, R. I.  
Cleveland Stone Co., Cleveland, O.  
Pike Mfg. Co., Pike, N. H.

**Grindstone Truing De-**

**vices—**  
Chas. H. Besly & Co., 10-12 No. Canal  
St., Chicago, Ill.

Brown & Sharpe Mfg. Co., Providence,  
R. I.

**Grips, Bicycle—**  
Federal Mfg. Co., Cleveland, O.

J. S. Leng's Son & Co., 4 Fletcher St.,  
New York.

**Grips, Cable—**  
A. Leschen & Sons Rope Co., St. Louis,  
Mo.

**Grips, Cord and Line—**  
Samson Cordage Works, Boston, Mass.

**Grips, Wood, Malleable**

**D's—**  
Avery Stamping Co., Cleveland, O.

**Grist Mills, Family—**  
(See Mills, Family Grist.)

**Grommets, Metallic—**  
Waterbury Brass Co., Waterbury, Ct.

**Grooming Machines—**  
American Shearer Mfg. Co., Nashua,  
N. H.

**Grooving Machines—**  
Chicago Flexible Shaft Co., La Salle Ave.  
& Ontario St., Chicago, Ill.

Niagara Machine & Tool Works, Buffalo,  
N. Y.

George A. Ohl & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pratt & Whitney Co., Hartford, Ct.

**Guards, Bicycle—**  
Stover Mfg. Co., Freeport, Ill.

Sturges & Burni Mfg. Co., Chicago, Ill.

**Guards, &c., Elevator—**  
Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Forest City Steel & Iron Co., Cleve-  
land, O.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

W. S. Tyler Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Guards, Flower and To-**

**mato—**  
De Kalb Fence Co., De Kalb, Ill.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Guards, Gas Jet—**  
(See Guards, Lamp and Light.)

**Guards, Gate—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

**Guards, Grave—**

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Spencer Wire Co., Worcester, Mass.

**Guards, Lamp and Light—**

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Parker Wire Goods Co., Worcester, Mass.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Guards, Lawn—**

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Guards, Mower and Reaper—**

Whitman & Barnes Mfg. Co., Akron, O.

**Guards, Radiator—**

Clinton Wire Cloth Co., Clinton, Mass.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

**Guards, Railroad Cattle—**

Sheffield Car Co., Three Rivers, Mich.

**Guards, Saw—**

E. C. Atkins & Co., Indianapolis, Ind.

**Guards, Skylight—**

(See Iron Work, Builders'.)

**Guards, Snow and Ice—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Clason Architectural Metal Co., Providence, R. I.

Cleveland Wire Spring Co., Cleveland, O.

Forest City Steel & Iron Co., Cleveland, O.

Spencer Wire Co., Worcester, Mass.

**Guards, Tree—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Buffalo Iron Works Co., Buffalo, N. Y.

City Forge & Iron Works, Dayton, O.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

De Kalb Fence Co., De Kalb, Ill.

Denovan Wire & Iron Co., Toledo, O.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

International Fence & Fireproofing Co., Columbus, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Spencer Wire Co., Worcester, Mass.

Stewart Iron Works, Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Guards, Trouser—**

Berlin Bros. Mfg. Co., Easthampton, Ct.

Tower & Lyon Co., 95 Chambers St., New York.

**Guards, Window, Iron—**

(See Iron and Brass, Ornamental.)

**Guards, Window, Wire—**

Clinton Wire Cloth Co., Clinton, Mass.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Buffalo Wire Works Co., Buffalo, N. Y.

City Forge & Iron Works, Dayton, O.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Howard & Morse, 45 Fulton St., N. Y.

Glen Mfg. Co., Ellwood City, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Murdock Corporation, Boston, Mass.

J. W. Paxson Co., Philadelphia, Pa.

Van Dorn Iron Works Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Gudgeons, Spool—**

Wire Goods Co., Worcester, Mass.

**Guides, Band Saw—**

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.

Filer & Stowell Co., Milwaukee, Wis.

Simonds Mfg. Co., Fitchburg, Mass.

**Guides, Elevator—**

Curry & Vannan, Danville, Pa.

**Guides, Engine, Shapes for—**

Finished Steel Co., Youngstown, O.

**Guides, Sheet and Rope—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Guides, Sliding Door Roller—**

Perfect Sliding Door Co., Bridgeport, Ct.

**Guitar Clamp Screws—**

(See Screws, Guitar and Violin Clamp.)

**Gummer Cutters—**

(See Cutters, Gummer.)

**Gummers, Saw—**

E. C. Atkins & Co., Indianapolis, Ind.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Henry Disston & Sons, Philadelphia, Pa.

Simonds Mfg. Co., Fitchburg, Mass.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

**Gun Carriages, Forgings—**

(See Carriages, Forgings.)

**Gun Implements—**

Ideal Mfg. Co., New Haven, Ct.

Remington Arms Co., 313 Broadway, N. Y.

Union Hardware Co., Torrington, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Gun Machinery—**

Detrick & Harvey Machine Co., Baltimore, Md.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.



- U. S. Rapid-Fire Gun & Power Co., Derby, Ct.  
**Guns, Insect Powder—**  
 Goodell Co., Antrim, N. H.  
**Guns, Shot—**  
 N. R. Davis & Sons, Assonet, Mass.  
 Harrington & Richardson Arms Co., Worcester, Mass.  
 Hopkins & Allen Arms Co., Norwich, Ct.  
 Iver Johnson's Arms & Cycle Works, Fitchburg, Mass.  
 Marlin Fire Arms Co., New Haven, Ct.  
 Remington Arms Co., 313 Broadway, N. Y.  
 J. Stevens Arms & Tool Co., Chicopee Falls, Mass.  
 Union Fire Arms Co., Toledo, O.  
**Gun Wads—**  
 (See Wads, Gun.)  
**Gutters—**  
 (See Eave Troughs and Gutters.)  
**Gutters in Rolls—**  
 (See Valleys and Gutters in Rolls.)  
**Guy Strand Wire—**  
 (See Wire Strand Guys, Galvanized.)  
**Hack Saws and Hack Saw Blades—**  
 (See Saws, Hack, and Hack Saw Blades.)  
**Hack Saws, Power—**  
 (See Saws, Power, Hack.)  
**Hair Brushes—**  
 (See Brushes, Silver Plated.)  
**Hair, Curled—**  
 Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.  
**Hair Felting—**  
 (See Felting, Hair.)  
**Hairpin Wire—**  
 (See Wire, Hairpin.)  
**Half Hatchets—**  
 (See Hatchets, Shingling, Half, &c.)  
**Halter Buckles, Chains, &c.—**  
 (See Buckles, Chains, &c.)  
**Halters, Rope, Web, &c.—**  
 Covert Mfg. Co., West Troy, N. Y.  
 Covert's Saddlery Works, Farmer, N. Y.  
 Metal Stamping Co., Niagara Falls, N. Y.  
**Hame Straps—**  
 (See Straps, Hame.)  
**Hammer Handles—**  
 (See Handles, Hammer.)  
**Hammers, Bill Posters', Long Handle—**  
 Kilborn & Bishop Co., New Haven, Ct.  
 Arthur R. Robertson, Boston, Mass.  
**Hammers, Blacksmiths' Hand—**  
 Billings & Spencer Co., Hartford, Ct.  
 Heller Bros. Co., Newark, N. J.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
 Whitman & Barnes Mfg. Co., Akron, O.  
**Hammers, Boilermakers'—**  
 Billings & Spencer Co., Hartford, Ct.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
**Hammers, Bronze—**  
 Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.  
**Hammers, Carriage Ironers—**  
 Heller Bros. Co., Newark, N. J.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
**Hammers, Cast Iron Claw—**  
 Arcade Mfg. Co., Freeport, Ill.  
 Columbia Grey Iron Casting Co., Columbia, Pa.  
 Frazier Mfg. Co., Cleveland, O.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.  
 A. C. Williams, Ravenna, O.  
**Hammers, Chain Link Welding—**  
 Turner Vaughn & Taylor Co., Cuyahoga Falls, O.  
**Hammers, Chipping—**  
 Heller Bros., Newark, N. J.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
**Hammers, Confectioners', Candy—**  
 Erie Specialty Co., Erie, Pa.  
**Hammers, Coopers'—**  
 Whitman & Barnes Mfg. Co., Akron, O.  
**Hammers, Copper—**  
 Merchant & Co., Inc., Philadelphia, Pa.  
**Hammers, Copper Tipped—**  
 Union Hardware Co., Torrington, Ct.  
**Hammers, Drop—**  
 Alliance Machine Co., Alliance, O.  
 American Tube & Stamping Co., Bridgeport, Ct.  
 Billings & Spencer Co., Hartford, Ct.  
 Blake & Johnson, Waterbury, Ct.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Canton Foundry & Machine Co., Canton, O.  
 Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.  
 Gould & Eberhardt, Newark, N. J.  
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.  
 Chas. Leffer & Co., Brooklyn, N. Y.  
 Long & Allstatter Co., Hamilton, O.  
 E. W. Merrill, Jr., Brooklyn, N. Y.  
 Merrill Bros., Brooklyn, N. Y.  
 Miner & Peck Mfg. Co., New Haven, Ct.  
 Niagara Machine & Tool Works, Buffalo, N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 George A. Ohi & Co., Newark, N. J.  
 Pratt & Whitney Co., Hartford, Ct.  
 Standard Machinery Co., Providence, R. I.  
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
 Williams, White & Co., Moline, Ill.  
 Woolley Foundry & Machine Works, Anderson, Ind.  
**MERCHANTS.**  
 George E. Affleck, 197 Liberty St., N. Y.  
 J. H. Dawson Machinery Co., 39-41 S. Canal, St., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Marshall & Husehart Machinery Co., 62-64 So. Canal St., Chicago, Ill.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
 Wickes Bros., Saginaw, Mich.  
**Hammers, Drop, for Metal Ceilings, &c.—**  
 Canton Foundry & Machine Co., Canton, O.  
**Hammers, Engineers'—**  
 Heller Bros. Co., Newark, N. J.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.  
 Whitman & Barnes Mfg. Co., Akron, O.  
**Hammers, Granite Workers'—**  
 Trow & Holden, Barre, Vt.

Wiebusch & Hilger, 9-15 Murray St., New York.

**Hammers, Farriers'—**  
Heller Bros. Co., Newark, N. J.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Whitman & Barnes Mfg. Co., Akron, O.

**Hammers, Heavy—**  
(See Sledges and Hammers.)

**Hammers, Machinists'—**  
American Brake Shoe & Foundry Co., Mahwah, N. J.

Billings & Spencer Co., Hartford, Ct.  
Heller Bros. Co., Newark, N. J.

Philadelphia Steel & Iron Co., Frankford, Philadelphia, Pa.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

Whitman & Barnes Mfg. Co., Akron, O.

Wiebusch & Hilger, 9-15 Murray St., New York.

**Hammers, Magnetic—**  
Arcade Mfg. Co., Freeport, Ill.

Billings & Spencer Co., Hartford, Ct.  
Kilborn & Bishop Co., New Haven, Ct.

Landers, Frary & Clark, New Britain, Ct.  
Arthur R. Robertson, Boston, Mass.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

**Hammers, Meat—**  
(See Pounders, Steak.)

**Hammers, Nail—**  
Columbia Grey Iron Casting Co., Columbia, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Philadelphia Steel & Iron Co., Frankford, Philadelphia, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Smith & Hemenway Co., 296 Broadway, New York.

Springfield Machine Screw Co., Springfield, Mass.

Wallis, Robinson & Co., 213 Lake St., Chicago, Ill.

Whitman & Barnes Mfg. Co., Akron, O.

Wiebusch & Hilger, 9-15 Murray St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

**Hammers, Paving—**  
E. C. Atkins & Co., Indianapolis, Ind.

**Hammers, Planishing—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Hammers, Pneumatic—**  
Thos. H. Dallett & Co., York St. & Sedgely Ave., Philadelphia, Pa.

Philadelphia Pneumatic Tool Co., 1038 Ridge Ave., Philadelphia, Pa.

Rand Drill Co., 128 Broadway, New York.

**Hammers, Power—**  
Beaudry & Co., Boston, Mass.

C. C. Bradley & Son, Syracuse, N. Y.

Dienelt & Eisenhardt, 1308 Howard St., Philadelphia, Pa.

Dubuque Machine Concern, Dubuque, Ia.

Fairbanks Co., 416 Broome St., New York.

R. E. Kiddle, Worcester, Mass.

J. H. Lingle, Bellefonte, Pa.

Long & Allstatter Co., Hamilton, O.

Merrill Bros., Brooklyn, N. Y.

Miner & Peck Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Patterson Tool & Supply Co., Dayton, O.

Scranton & Co., New Haven, Ct.

Standard Machinery Co., Providence, R. I.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Williams, White & Co., Moline, Ill.

Woolley Foundry & Machine Works, Anderson, Ind.

**MERCHANTS.**  
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

**Hammers, Pressing—**  
Whitman & Barnes Mfg. Co., Akron, O.

**Hammers, Raising—**  
Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Hammers, Riveting—**  
Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

Whitman & Barnes Mfg. Co., Akron, O.

**Hammers, Rotary Riveting—**  
F. E. Shuster & Co., New Haven, Ct.

Williams, White & Co., Moline, Ill.

**Hammers, Saddlers' and Upholsterers'—**  
Arcade Mfg. Co., Freeport, Ill.

Fanner Mfg. Co., Cleveland, O.

Kilborn & Bishop Co., New Haven, Ct.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Wiebusch & Hilger, 9-15 Murray St., New York.

A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville, Pa.

**Hammers, Setting—**  
Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Whitman & Barnes Mfg. Co., Akron, O.

**Hammers, Shoe—**  
Adams Co., Dubuque, Ia.

Fanner Mfg. Co., Cleveland, O.

John C. Kupperle, St. Louis, Mo.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Root Bros. Co., Plymouth, O.

Louis Sacks Iron Foundry, Newark, N. J.

Sargent & Co., 151 Leonard St., N. Y.

Stover Mfg. Co., Freeport, Ill.

Wiebusch & Hilger, 9-15 Murray St., New York.

A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville, Pa.

**Hammers, Steam—**  
 Alliance Machine Co., Alliance, O.  
 Bethlehem Foundry & Machine Co.,  
 South Bethlehem, Pa.  
 Diemelt & Eisenhardt, 1308 Howard St.,  
 Philadelphia, Pa.  
 Richard Dudgeon, 24 Columbia St., N. Y.  
 Chas. F. Elmes Engineering Works, 253-  
 259 Fulton St., Chicago, Ill.  
 Heppenstall Forge & Knife Co., Pitts-  
 burgh, Pa.  
 McDougall & Potter Co., 602-612 W. 55th  
 St., New York.  
 E. W. Merrill, Jr., Brooklyn, N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty  
 St., New York.  
 Wm. Sellers & Co. (Inc.), Philadelphia.

## MERCHANTS.

George E. Atleck, 107 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 Barclay M. Everson, Pittsburgh, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 F. R. Phillips & Sons Co., Harrison  
 Bldg., Philadelphia, Pa.  
 Prentiss Tool & Supply Co., 115 Liberty  
 St., New York.  
 Joseph T. Ryerson & Son, 18-22 Milwau-  
 kee Ave., Chicago, Ill.  
 L. F. Seyfarth & Sons, 437-441 No. 3d St.,  
 Philadelphia, Pa.  
 J. R. Vandeyck, 8 Dey St., New York.

**Hammers, Steam Helve—**  
 Charles F. Elmes Engineering Works,  
 Morgan and Fulton Sts., Chicago, Ill.

**Hammers, Stone Cutters'—**  
 Whitman & Barnes Mfg. Co., Akron, O.

**Hammers, Tack—**  
 Arcade Mfg. Co., Freeport, Ill.  
 Billings & Spencer Co., Hartford, Ct.  
 Fanner Mfg. Co., Cleveland, O.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Landers, Frary & Clark, New Britain, Ct.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

Arthur R. Robertson, Boston, Mass.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stanley Rule & Level Co., New Brit-  
 ain, Ct.  
 Stover Mfg. Co., Freeport, Ill.  
 Wiehusch & Hilger, 9-15 Murray St.,  
 New York.

A. C. Williams, Ravenna, O.  
 Wrightsville Hardware Co., Wrightsville,  
 Pa.

**Hammers, Tinner's—**  
 C. S. Mersick & Co., New Haven, Ct.  
 Niagara Machine & Tool Works, Buffalo,  
 N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

**Hammers, Tire Welding—**  
 Williams, White & Co., Moline, Ill.

**Hammers, Turning—**  
 Billings & Spencer Co., Hartford, Ct.  
 Heller Bros. Co., Newark, N. J.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

**Hammers, Vacuum—**  
 Williams, White & Co., Moline, Ill.

**Hammock Cords, Hooks,  
&c.—**

(See Cords, Hooks, &c.)

**Hammocks—**  
 J. E. Palmer, Middletown, Ct.

**Hammock Trapeze Bars—**  
 (See Supports and Bars, Hammock.)

**Hand Bells, &c.—**  
 (See Bells, &c.)

**Hand Cuffs and Leg Irons—**  
 Tower & Lyon Co., 95 Chambers St.,  
 New York.

**Hand Hoist Carriers—**  
 (See Carriers, Hand Hoist.)

**Hand Hole Punches—**  
 (See Punches, Hand and Tube Hole.)

**Handle Bars—**  
 (See Bicycle Parts.)

**Handles, Boiler, &c.—**  
 (See Fitters' Trimmings.)

**Handles and Heads, Brace  
Bit—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
 Piqua Handle & Mfg. Co., Piqua, O.

**Handles and Heads, Duster—**  
 Baker McMillen Co., Akron, O.

**Handles and Locks, Store  
Door—**

New York Lock Co., Branford, Ct.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers  
 St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Handles, Auger—**

R. Bliss Mfg. Co., Pawtucket, R. I.  
 E. B. Estes & Sons, 45-47 John St., N. Y.  
 W. R. Hartigan, Collinsville, Ct.  
 Millers Falls Co., 28 Warren St., N. Y.  
 Ohio Tool Co., Columbus, O.

Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Axe, Pick, Sledge,  
&c.—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
 Wm. R. Hartigan, Collinsville, Ct.

**Handles, Bag, Box, &c.—**

R. C. Jenkinson & Co., Newark, N. J.

**Handles, Basket, Wire—**

E. H. Titchener & Co., Binghamton, N. Y.

**Handles, Boiler—**

Adams Co., Dubuque, Ia.  
 American Fork & Hoe Co., Cleveland, O.

**Handles, Broom—**

Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Brush, Duster,  
&c.—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
 W. R. Hartigan, Collinsville, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Burnisher—**

Louis Sacks Iron Foundry, Newark, N. J.

**Handles, Carriage Door—**

Walter W. Woodruff & Sons Co., Mount  
 Carmel, Ct.

**Handles, Carving Tool—**

Chapin-Stephens Co., Pine Meadow, Ct.  
 Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Chest, Shutter,  
&c.—**

Ney Mfg. Co., Canton, O.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers  
 St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 Stanley Works, New Britain, Ct.  
 Stover Mfg. Co., Freeport, Ill.

Taylor & Boggis Foundry Co., Cleveland

W. & J. Tiebout, 118 Chambers St., N. Y.  
A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Handles, Chisel, File, Awl, &c.**

Baker, McMillen Co., Akron, O.  
R. Bliss Mfg. Co., Pawtucket, R. I.  
Buck Bros., Millbury, Mass.  
Chapin-Stephens Co., Pine Meadow, Ct.  
E. B. Estes & Sons, 45-47 John St., N. Y.  
Federal Mfg. Co., Cleveland, O.  
Fitchburg File Works, Fitchburg, Mass.  
W. R. Hartigan, Collinsville, Ct.  
C. E. Jennings Co., 42 Murray St., N. Y.  
Nicholson File Co., Providence, R. I.  
Ohio Tool Co., Columbus, O.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Piqua Handle & Mfg. Co., Piqua, O.  
Sargent & Co., 151 Leonard St., N. Y.  
Stanley Rule & Level Co., New Britain, Ct.  
Union Hardware Co., Torrington, Ct.  
Union Mfg. & Specialty Co., Buffalo,  
N. Y.

**Handles, Chisel, Leather Head—**

Piqua Handle & Mfg. Co., Piqua, O.  
**Handles, Chisel, Solid Leather—**  
Union Mfg. & Specialty Co., Buffalo,  
N. Y.

**Handles, Cork Screw—**

W. R. Hartigan, Collinsville, Ct.  
**Handles, Corn Knife—**

Baker, McMillen Co., Akron, O.  
**Handles, Crosscut Saw—**  
E. C. Atkins & Co., Indianapolis, Ind.  
George H. Bishop & Co., Cincinnati, O.  
Henry Disston & Sons, Philadelphia, Pa.  
E. B. Estes & Sons, 45-47 John St., N. Y.  
C. E. Jennings Co., 42 Murray St., N. Y.  
National Saw Co., Newark, N. J.  
Piqua Handle & Mfg. Co., Piqua, O.  
Simonds Mfg. Co., Fitchburg, Mass.

**Handles, Curry Comb—**

Baker, McMillen Co., Akron, O.  
E. B. Estes & Sons, 45-47 John St., N. Y.  
W. R. Hartigan, Collinsville, Ct.  
Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Damper—**

Baker, McMillen Co., Akron, O.  
**Handles, Detachable Tool—**  
Millers Falls Co., 28 Warren St., N. Y.  
Nicholson File Co., Providence, R. I.

**Handles, Door—**

Lawrence Bros., Sterling, Ill.  
Midland Iron Works, Racine, Wis.  
New York Lock Co., Branford, Ct.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
Taylor & Boggs Foundry Co., Cleveland.  
Wilcox Mfg. Co., Aurora, Ill.  
Yale & Towne Mfg. Co., 9-13 Murray St.,  
New York.

**Handles, Door Bell—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

**Handles, Drawer—**

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

**Handles, Enameled and Plain—**

Baker, McMillen Co., Akron, O.  
W. R. Hartigan, Collinsville, Ct.  
Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Floral Set—**

Piqua Handle & Mfg. Co., Piqua, O.  
**Handles, Fork, Spade, Shovel, Scoop, Hoe, Rake, &c.—**

American Fork & Hoe Co., Cleveland, O.  
Avery Stamping Co., Cleveland, O.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
Piqua Handle & Mfg. Co., Piqua, O.  
Withington & Cooley Mfg. Co., Jackson,  
Mich.

**Handles, Gas Taper Light—**

Piqua Handle & Mfg. Co., Piqua, O.  
**Handles, Gimlet—**

W. R. Hartigan, Collinsville, Ct.  
**Handles, Grass Hook, Hedge Shear, Ice Pick, Cleaver, Crank, Corn Knife, Corn Popper, Trowel, &c.—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
Piqua Handle & Mfg. Co., Piqua, O.  
**Handles, Hammer—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
W. R. Hartigan, Collinsville, Ct.  
Piqua Handle & Mfg. Co., Piqua, O.  
Louis Sacks Iron Foundry, Newark, N. J.

**Handles, Hand Saw—**

(See Handles, Plane and Saw.)  
**Handles, Hollow Metal—**

Standard Welding Co., Cleveland, O.  
**Handles, Ice and Cant Hook—**

Piqua Handle & Mfg. Co., Piqua, O.  
**Handles, Ice, Chisel, Shave, Spoon—**

Piqua Handle & Mfg. Co., Piqua, O.  
**Handles, Knife, Wrench, &c.—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
W. R. Hartigan, Collinsville, Ct.  
Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Ladle—**

Baker, McMillen Co., Akron, O.  
**Handles, Lawn Mower—**

Wm. R. Hartigan, Collinsville, Ct.  
Piqua Handle & Mfg. Co., Piqua, O.

**Handles, Lifting—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

**Handles, Log and Lumber Tool—**

Morley Bros., Saginaw, Mich.  
**Handles, Machine—**  
Billings & Spencer Co., Hartford, Ct.  
Keystone Drop Forge Works, Chester, Pa.  
Kilborn & Bishop Co., New Haven, Ct.  
Transue & Williams Co., Alliance, O.  
J. H. Williams & Co., Brooklyn, N. Y.

**Handles, Plane and Saw—**

E. C. Atkins & Co., Indianapolis, Ind.  
Geo. H. Bishop & Co., Cincinnati, O.  
Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Disston & Sons, Philadelphia, Pa.  
E. B. Estes & Sons, 45-47 John St., N. Y.  
C. E. Jennings Co., 42 Murray St., N. Y.  
National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.  
Stanley Rule & Level Co., New Britain, Ct.

**Handles, Plate—**

(See Kitchen Articles, Wire.)

**Handles, Putty Knife—**

W. R. Hartigan, Collinsville, Ct.

**Handles, Rice Boiler—**

Baker, McMillen Co., Akron, O.

**Handles, Rubber Stamp—**

Baker, McMillen Co., Akron, O.

W. R. Hartigan, Collinsville, Ct.

**Handles, Sad Iron—**

Enterprise Mfg. Co., Philadelphia, Pa.

E. B. Estes &amp; Sons, 45-47 John St., N. Y.

Fanner Mfg. Co., Cleveland, O.

Piqua Handle &amp; Mfg. Co., Piqua, O.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

**Handles, Screw Driver—**

Baker, McMillen Co., Akron, O.

Chapin-Stephens Co., Pine Meadow, Ct.

E. B. Estes &amp; Sons, 45-47 John St., N. Y.

W. R. Hartigan, Collinsville, Ct.

Piqua Handle &amp; Mfg. Co., Piqua, O.

**Handles, Soldering Copper—**

Baker, McMillen Co., Akron, O.

Piqua Handle &amp; Mfg. Co., Piqua, O.

**Handles, Steam Valve—**

(See Wheels, Steam Valve.)

**Handles, Tack Puller—**

W. R. Hartigan, Collinsville, Ct.

Piqua Handle &amp; Mfg. Co., Piqua, O.

**Handles, Tea and Coffee****Pot—**

Baker, McMillen Co., Akron, O.

**Handles, Toy Garden Set—**

Piqua Handle &amp; Mfg. Co., Piqua, O.

**Handles, Tub—**

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

**Handles, Whisk Broom—**

Baker, McMillen Co., Akron, O.

**Handles, Wrench—**

(See Handles, Knife, Wrench.)

**Hand Rail Brackets,****Screws—**

(See Brackets, Screws.)

**Hand Screws, Vises—**

(See Screws, Vises.)

**Hangers, Accordion or****Folding Door—**

McCabe Hanger Mfg. Co., 532-542 W. 22d

St., New York.

**Hangers and Rails, Sus-****pended—**

(See Rails and Hangers, Suspended.)

**Hangers and Stirrups, Joist****and Timber—**

Bethlehem Foundry &amp; Machine Co.,

South Bethlehem, Pa.

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

Columbian Hardware Co., Cleveland, O.

Donovan Wire &amp; Iron Co., Toledo, O.

M. Lanz &amp; Sons, Pittsburgh, Pa.

National Iron &amp; Wire Co., Cleveland, O.

A. A. Phillips, Jr., Brooklyn, N. Y.

Steward &amp; Romaine Mfg. Co., Philadel-

phia, Pa.

Van Dorn Iron Works Co., Cleveland, O.

**Hangers, Barn Door—**

Chicago Spring Butt Co., Chicago, Ill.

Cronk &amp; Carrier Mfg. Co., Elmira, N. Y.

Griffin Mfg. Co., Erie, Pa.

John C. Kuperle, St. Louis, Mo.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

McCabe Hanger Mfg. Co., 532-542 W. 22d

St., New York.

McKinney Mfg. Co., Allegheny, Pa.

Midland Iron Works, Racine, Wis.

F. E. Myers &amp; Bro., Ashland, O.

National Mfg. Co., Sterling, Ill.

New Jersey Foundry &amp; Machine Co., 9-

15 Murray St., New York.

Ney Mfg. Co., Canton, O.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Plenger &amp; Henger Mfg. Co., St. Louis.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Safety Door Hanger Co., Ashland, O.

Sargent &amp; Co., 151 Leonard St., N. Y.

Stowell Mfg. &amp; Fdry. Co., South Mil-

waukee, Wis.

Taylor &amp; Boggis Foundry Co., Cleveland.

Wilcox Mfg. Co., Aurora, Ill.

Wrightsville Hardware Co., Wrightsville,

Pa.

**Hangers, Barn Door,****Hinged—**

Allith Mfg. Co., 122-124 S. Green St., Chi-

cago, Ill.

Cronk &amp; Carrier Mfg. Co., Elmira, N. Y.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

McKinney Mfg. Co., Allegheny, Pa.

Midland Iron Works, Racine, Wis.

F. E. Myers &amp; Bro., Ashland, O.

National Mfg. Co., Sterling, Ill.

J. E. Porter Co., Ottawa, Ill.

Safety Door Hanger Co., Ashland, O.

Stowell Mfg. &amp; Fdry. Co., South Mil-

waukee, Wis.

Wilcox Mfg. Co., Aurora, Ill.

**Hangers, Boiler—**

Joseph T. Ryerson &amp; Son, 18-22 Mil-

waukee Ave., Chicago, Ill.

**Hangers, Car Door—**

Chisholm &amp; Moore Mfg. Co., Cleve-

land, O.

McCabe Hanger Mfg. Co., 532-542 W. 22d

St., New York.

New Jersey Foundry &amp; Machine Co., 9-15

Murray St., New York.

Pleuger &amp; Henger Mfg. Co., St. Louis.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers

St., New York.

Stowell Mfg. &amp; Fdry. Co., South Mil-

waukee, Wis.

**Hanger Screws—**

(See Screws, Hanger.)

**Hangers, Cup and Saucer,****Plate—&c.**

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Hangers, Cycle—**

(See Stands and Holders, Bicycle.)

**Hangers, Dumb Bell and****Indian Club—**

A. C. Williams, Ravenna, O.

**Hangers, Eave Trough—**

Berger Bros. Co., 231-237 Arch St., Phil-

adelphia, Pa.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Clark, Quien & Morse, Peoria, Ill.  
Garry Iron & Steel Co., Cleveland, O.

**Hangers, Elevator Door—**  
Chisholm & Moore Mfg. Co., Cleveland, O.

Lane Bros. Co., Poughkeepsie, N. Y.  
McCabe Hanger Mfg. Co., 532-542 W. 23d St., New York.

McKinney Mfg. Co., Allegheny, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Stowell Mfg. & Fdry. Co., South Milwaukee, Wis.

Wilcox Mfg. Co., Aurora, Ill.

**Hangers, Fire Door—**  
Allith Mfg. Co., 122 S. Green St., Chicago, Ill.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

McCabe Hanger Mfg. Co., 532-542 W. 23d St., New York.

Midland Iron Works, Racine, Wis.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis.  
Richards Mfg. Co., Aurora, Ill.

Safety Door Hanger Co., Ashland, O.  
Stowell Mfg. & Fdry. Co., South Milwaukee, Wis.

Wilcox Mfg. Co., Aurora, Ill.

**Hangers, Garment and Trousers—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Caldwell Mfg. Co., Rochester, N. Y.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Parker Wire Goods Co., Worcester, Mass.  
A. J. Phillips Co., Fenton, Mich.

Pullman Mfg. Co., Rochester, N. Y.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hangers, Gate—**  
Griffin Mfg. Co., Erie, Pa.

Lawrence Bros., Sterling, Ill.  
F. E. Myers & Bro., Ashland, O.

**Hangers, House Door—**  
Safety Door Hanger Co., Ashland, O.

John C. Kupferle, St. Louis, Mo.  
Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.  
Louden Machinery Co., Fairfield, Ia.

McCabe Hanger Mfg. Co., 532-542 W. 23d St., New York.

McKinney Mfg. Co., Allegheny, Pa.  
National Mfg. Co., Sterling, Ill.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Perfect Sliding Door Co., Bridgeport, Ct.  
Richards Mfg. Co., Aurora, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 121 Leonard St., N. Y.  
Stowell Mfg. & Fdry. Co., South Milwaukee, Wis.

Wilcox Mfg. Co., Aurora, Ill.

**Hangers, Paint Pot—**  
Eyelet Tool Co., Boston, Mass.

**Hangers, Pine—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Crane Co., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Garry Iron & Steel Co., Cleveland, O.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Jenkins Bros., 71 John St., New York.  
McNab & Harlin Mfg. Co., 56 John St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

**Hangers, Post—**  
C. O. Bartlett & Snow Co., Cleveland, O.

Borden & Selleck Co., 43 Lake St., Chicago, Ill.

Ruhl Malleable Co., Detroit, Mich.

Case Mfg. Co., Columbus, O.

Columbia Bridge Co., Pittsburgh, Pa.  
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

**Hangers, Pressed Steel Shaft—**  
Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

**Hangers, Shaft—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Baker Bros., Toledo, O.

Ball Bearing Co., 2322 Market St., Philadelphia, Pa.

Boston Gear Works, Boston, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Ruhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.  
Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

W. P. Davis Machine Co., Rochester, N. Y.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.  
Filer & Stowell Co., Milwaukee, Wis.

I. & E. Greenwald Co., Cincinnati, O.  
Hess-Snyder Co., Massillon, O.

Howard Iron Works, Buffalo, N. Y.  
Hyatt Roller Bearing Co., Harrison, N. J.

Jeffrey Mfg. Co., Columbus, O.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.

Lane & Bodley Co., Cincinnati, O.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Poole Engineering & Machine Co., Baltimore, Md.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Standard Machinery Co., Providence, R. I.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.  
Warsaw Elevator Co., Warsaw, N. Y.

Wolf Co., 523 No. 23d St., Philadelphia, Pa.

- Hangers, Shafting, Ball and Roller Bearings for—**  
Bantam Mfg. Co., Bantam, Ct.
- Hangers, Street Car Door—**  
Stowell Mfg. & Fdry. Co., South Milwaukee, Wis.
- Hangers, Trolley Wire—**  
(See Trolley Materials, Electric.)
- Hangers, Warehouse Door—**  
Chisholm & Moore Mfg. Co., Cleveland.  
Griffin Mfg. Co., Erie, Pa.  
McCabe Hanger Mfg. Co., 532-542 W. 22d St., New York.  
Midland Iron Works, Racine, Wis.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.  
Stowell Mfg. & Fdry. Co., South Milwaukee, Wis.  
Wilcox Mfg. Co., Aurora, Ill.
- Hangers, Window Screen and Storm Sash—**  
Phenix Mfg. Co., Milwaukee, Wis.  
Stanley Works, New Britain, Ct.
- Hanging Baskets, Lamps—**  
(See Baskets, Lamps.)
- Hardeners, Felt—**  
Farrel Foundry & Machine Co., Ansonia, Ct.
- Hardies, Anvil—**  
Heller Bros. Co., Newark, N. J.
- Hardware, Belt, Harness, Blanket—**  
(See Belt, Harness and Blanket Hardware.)
- Hardware, Carriage and Wagon—**  
(See Carriage and Wagon Hardware.)
- Hardware Commission Merchants—**  
(See Agents.)
- Hardware Jobbers—**  
(See Jobbers, Hardware, Cutlery, &c.)
- Hardware, Marine—**  
(See Marine Hardware.)
- Hardware Shelf Boxes—**  
(See Boxes, Shelf.)
- Hardware Store Shelving—**  
(See Shelving.)
- Hardware, Trunk and Bag—**  
(See Corners, Clamps, Locks, Frames, Handles, &c.)
- Harness and Strap Work—**  
Morley Bros., Saginaw, Mich.
- Harness Chains, Hooks, &c.—**  
(See Chains, Hooks, &c.)
- Harpoons—**  
W. & J. Tiebout, 118 Chambers St., N. Y.
- Harrow Teeth—**  
(See Teeth.)
- Harrows—**  
Bateman Mfg. Co., Grenloch, N. J.  
Cutaway Harrow Co., Higganum, Ct.  
W. C. Heller & Co., Montclair, N. J.  
Long & Allstatter Co., Hamilton, O.  
Syracuse Chilled Plow Co., Syracuse, N. Y.  
R. W. Whitehurst & Co., Norfolk, Va.
- Hasps and Staples—**  
(See Wrought Iron Goods.)
- Hasps, Hinge—**  
Griffin Mfg. Co., Erie, Pa.  
M. Lanz & Sons, Pittsburgh, Pa.  
Lawrence Bros., Sterling, Ill.  
McKinney Mfg. Co., Allegheny, Pa.  
National Mfg. Co., Sterling Ill.
- Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Stanley Works, New Britain, Ct.
- Hat Badges—**  
(See Badges and Medals.)
- Hatch Doors—**  
(See Doors, Automatic Hatch.)
- Hatchets, Combination—**  
Kilborn & Bishop Co., New Haven, Ct.
- Hatchets, Ice—**  
Peck Edge Tool Co., Cohoes, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.  
A. C. Williams, Ravenna, O.
- Hatchets, Rafting—**  
Columbia Grey Iron Casting Co., Columbia, Pa.
- Hatchets, Shingling, Half, &c.—**  
Columbia Grey Iron Casting Co., Columbia, Pa.  
Findlay Axe & Tool Co., Findlay, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Sargent & Co., 151 Leonard St., N. Y.**  
Stover Mfg. Co., Freeport, Ill.  
L. & I. J. White Co., Buffalo, N. Y.  
Wiebusch & Hilger, 9-15 Murray St., N. Y.  
A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville, Pa.
- Haulage Plants—**  
Broderick & Bascom Rope Co., St. Louis.  
Thos. Carlin's Sons, Allegheny, Pa.  
A. Leschen & Sons Rope Co., St. Louis.  
Macomber & Whyte Rope Co., Chicago.  
Trenton Iron Co., Trenton, N. J.
- Haulage, Wire Rope Underground—**  
Broderick & Bascom Rope Co., St. Louis.  
A. Leschen & Sons Rope Co., St. Louis.
- Hauls, Log—**  
(See Log Hauls.)
- Hawners, Wire—**  
Durable Wire Rope Co., Boston, Mass.
- Hay Fork Carriers, Pulleys—**  
(See Haying Tools, Pulleys.)
- Hay Forks—**  
(See Forks, Hay, Manure, Spading, &c.)
- Haying Tools (Forks, Slings and Carriers)—**  
Louden Machinery Co., Fairfield, Ia.  
E. E. Myers & Bro., Ashland, O.  
Ney Mfg. Co., Canton, O.  
J. E. Porter Co., Ottawa, Ill.  
Rock River Machine Co., Janesville, Wis.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
Syracuse Chilled Plow Co., Syracuse, N. Y.  
Warsaw Elevator Co., Warsaw, N. Y.  
Whitman & Barnes Mfg. Co., Akron, O.
- Hay Knives, Rope—**  
(See Knives, Rope.)
- Hay Racks—**  
(See Stable Fixtures.)
- Header and Bender, Bicycle Spoke—**  
(See Spoke Header and Bender, Bicycle.)
- Headers, Barrel—**  
Warsaw Elevator Co., Warsaw, N. Y.
- Headers, Bolt—**  
Acme Machinery Co., Cleveland, O.  
Ajax Mfg. Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
Baird Machinery Co., Pittsburgh, Pa.

Blake & Johnson, Waterbury, Ct.  
Boytton & Plummer, Worcester, Mass.  
National Machinery Co., Tiffin, O.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Wells Bros. & Co., Greenfield, Mass.

**Headers, Rivet-**  
Acme Machinery Co., Cleveland, O.  
Ajax Mfg. Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
Blake & Johnson, Waterbury, Ct.  
National Machinery Co., Tiffin, O.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Headers, Rod-**  
Blake & Johnson, Waterbury, Ct.  
E. J. Manville Machine Co., Waterbury, Ct.  
National Machinery Co., Tiffin, O.

**Heading and Shingle Machines-**  
Dubuque Machine Concern, Dubuque, Ia.  
Peter Gerlach Co., Cleveland, O.  
Lane Mfg. Co., Montpelier, Vt.

**Headless Bolts-**  
(See Bolts, Special.)

**Heads, Clamp-**  
R. Bliss Mfg. Co., Pawtucket, R. I.  
Sargent & Co., 151 Leonard St., N. Y.

**Heads, Conductor-**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
Canton Steel Roofing Co., Canton, O.  
Garry Iron & Steel Co., Cleveland, O.

**Heads, Duster-**  
(See Handles and Heads.)

**Heads, Exhaust-**  
American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.  
Bort Mfg. Co., Akron, O.  
Benj. F. Kelley & Son, 91 Liberty St., New York.

L. O. Koven & Bro., 50 Cliff St., N. Y.  
F. L. Patterson & Co., 26 Cortlandt St., New York.  
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

B. F. Sturtevant Co., Boston, Mass.  
Whitlock Coil Pipe Co., Hartford, Ct.  
**Heads, Fire Sprinkling-**  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Heads, Flanged and Dished Boiler-**  
Avery Stamping Co., Cleveland, O.  
E. Keeler Co., Williamsport, Pa.  
Lukens Iron & Steel Co., Coatesville, Pa.

**Heads, Flanged, Barrel and Keg-**  
Cleveland Wire Spring Co., Cleveland, O.

**Heads, Indexing and Dividing-**  
Becker-Brainard Milling Machine Co., Hyde Park, Mass.  
Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.  
Garvin Machine Co., Spring and Vicks Sta., New York.  
Ideal Machine Co., Hartford, Ct.

Kemp Smith Mfg. Co., Milwaukee, Wis.  
Pratt & Whitney Co., Hartford, Ct.

**Heads, Kitchen Boiler, &c.-**  
Avery Stamping Co., Cleveland, O.

**Heads, Mower-**  
Whitman & Barnes Mfg. Co., Akron, O.

**Heads, Planer-**  
Tindel-Morris Co., Eddystone, Pa.

**Heads, Polishing-**  
Chandler & Farquhar, Boston, Mass.  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
Cutter, Wood & Stevens Co., Boston, Mass.

Goodell-Pratt Co., Greenfield, Mass.  
Hanson & Van Winkle Co., Newark, N. J.  
Zucker & Levett & Loeb Co., 526 West 25th St., New York.

**Heads, Tank-**  
W. J. Clark Co., Salem, O.

**Heaters, Asphalt and Mastic-**  
F. H. Evans, Brooklyn, N. Y.

**Heaters, Barrel**  
Warsaw Elvaco Co., Warsaw, N. Y.

**Heaters, Carriage-**  
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

**Heaters, Curling Iron, Electric**

United Electric Heating Co., Detroit, Mich.

**Heaters, Electric Air-**  
United Electric Heating Co., Detroit, Mich.

**Heaters, Electric Immersion-**  
United Electric Heating Co., Detroit, Mich.

**Heaters, Electric Water-**  
United Electric Heating Co., Detroit, Mich.

**Heaters, Feed Water-**  
W. J. Adams, Joliet, Ill.

Allis-Chalmers Co., Home Insurance Building, Chicago, Ill.

Green Fuel Economizer Co., Matteawan, N. Y.

**Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.**

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

Benj. F. Kelley & Son, 91 Liberty St., New York.

L. O. Koven & Bro., 50 Cliff St., N. Y.

John H. McGowan Co., Cincinnati, O.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

National Pipe Bending Co., New Haven, Ct.

Frank L. Patterson & Co., 26 Cortlandt St., New York.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Taunton Locomotive Mfg. Co., Ltd., Taunton, Mass.

Tudor Boiler Mfg. Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Warren Webster & Co., Camden, N. J.

Robt. Wetherill & Co., Chester, Pa.

Whitlock Coil Pipe Co., Hartford, Ct.

Wickes Bros., Saginaw, Mich.

MERCHANTS

Charles Behler, 72 Trinity Pl., New York.

Fairbanks Co., 416 Broome St., New York.

I. & E. Greenwald Co., Cincinnati, O.

McDowell & Co., Pittsburgh, Pa.



Mertes Machinery Co., Milwaukee, Wis.  
 R. R. Sherman & Co., Boston, Mass.  
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
 Whitehead Machinery Co., Davenport, Ia.

**Heaters, Food—**

Novelty Mfg. Co., Jackson, Mich.

**Heaters, Gas, Gasoline and Oil**

Wm. M. Crane Co., 1131 Broadway, N. Y.  
 Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.

Ferno Co., Brooklyn, N. Y.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Hollanda Mfg. Co., Erie, Pa.

Charles Mundt & Sons, 441-447 Pearl St., New York.

Novelty Mfg. Co., Jackson, Mich.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

**Heaters, Gas, Water—**

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

**Heaters, Glue—**

Cutter, Wood & Stevens Co., Boston, Mass.

**Heaters, Glue Pot—**

J. A. Taggart, Toledo, O.

**Heaters, House—**

(See Furnaces; also Boilers.)

**Heaters, Kitchen Boiler—**

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

**Heaters, Lamp Chimney—**

W. R. Hartigan, Collinsville, Ct.

**Heaters, Lamp Chimney, Wire—**

(See Household Articles, Wire.)

**Heaters, Railway Joint—**

White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**Heaters, Sad Iron—**

Blacklock Foundry, So. Pittsburg, Tenn.

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Enterprise Mfg. Co., Philadelphia, Pa.

Novelty Mfg. Co., Jackson, Mich.

Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

A. C. Williams, Ravenna, O.

**Heaters, Tank—**

Flint & Walling Mfg. Co., Kendallville, Ind.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Heating and Ventilating Apparatus—**

American Blower Co., Detroit, Mich.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Exeter Machine Works, Exeter, N. H.

Howard & Morse, 45 Fulton St., N. Y.

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

John H. McGowan Co., Cincinnati, O.

B. F. Sturtevant Co., Boston, Mass.

Walworth Mfg. Co., Boston, Mass.

Warren Webster & Co., Camden, N. J.

**MERCHANTS.**

McGeorge & Sons, Cleveland, O.

Power Specialty Co., 126 Liberty St., New York.

Wickes Bros., Saginaw, Mich.

**Hedge Spades—**

Mt. Pleasant Tool Co., Mt. Pleasant, Pa.

**Heel Chains, Plates, Stiffeners—**

(See Chains, Plates, Stiffeners.)

**Hemlock and Oak Strips—**

N. F. Thayer Co., Boston, Mass.

**Hide Rope—**

(See Rope, Hide.)

**Hinge Hasps, Nails, Plates—**

(See Hasps, Nails, Plates.)

**Hinge Machinery, Automatic—**

Baird Machine Co., Oakville, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Hinges and Hasps, Box, Crate, &c.—**

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

Griffin Mfg. Co., Erie, Pa.

McKinney Mfg. Co., Allegheny, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

**Hinges, Automobile, Carriage—**

Walker W. Woodruff & Sons Co., Mount Carmel, Ct.

**Hinges, Bag, Suit and Sample Case—**

R. C. Jenkinson & Co., Newark, N. J.

J. H. Sessions & Son, Bristol, Ct.

**Hinges, Blind—**

Charles Parker Co., Meriden, Ct.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Stover Mfg. Co., Freeport, Ill.

Susquehanna Castings Co., Wrightsville, Pa.

R. F. Whipple & Co., Springfield, Mass.

Wire Goods Co., Worcester, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

**Hinges, Brass—**

Arcade Mfg. Co., Freeport, Ill.

Columbian Hardware Co., Cleveland, O.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Stover Mfg. Co., Freeport, Ill.

**Hinges, Brass, Bronze, &c.—**

(See Butts and Hinges, Brass, Bronze, &c.)

**Hinges, Cabinet—**

(See Cabinet Hinges.)

**Hinges, Car Door—**

Midland Iron Works, Racine, Wis.

**Hinges, Checking Spring—**

Joseph Bardsley, 147 Baxter St., N. Y.

**Hinges, Floor Spring—**

Joseph Bardsley, 147 Baxter St., N. Y.

Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Columbian Hardware Co., Cleveland, O.

Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

Shelby Spring Hinge Co., Shelby, O.

Stover Mfg. Co., Freeport, Ill.

**Hinges, Folding Bed—**  
American Tube & Stamping Co., Bridgeport, Ct.

McKinney Mfg. Co., Allegheny, Pa.

**Hinges, Foundry Flask—**  
Susquehanna Castings Co., Wrightsville, Pa.

**Hinges, Gate—**  
John G. Kupferle, St. Louis, Mo.  
Charles Parker Co., Meriden, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Susquehanna Castings Co., Wrightsville, Pa.

Union Mfg. Co., New Britain, Ct.  
Wilcox Mfg. Co., Aurora, Ill.  
Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Hinges, Long Chest—**

McKinney Mfg. Co., Allegheny, Pa.

Stanley Works, New Britain, Ct.

**Hinges, Malleable Iron—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Hinges, Pin—**  
Sargent & Co., 151 Leonard St., N. Y.

**Hinges, Pivot—**  
Bommer Bros., Brooklyn, N. Y.  
Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

**Hinges, Plate—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

**Hinges, Refrigerator—**

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Stover Mfg. Co., Freeport, Ill.

W. & J. Tiebout, 118 Chambers St., N. Y.

Universal Fastener Co., Cleveland, O.

**Hinges, Screw Hook or**

**Strap and Eye—**

M. Lanz & Sons, Pittsburgh, Pa.

McKinney Mfg. Co., Allegheny, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Hinges, Shutter—**

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Susquehanna Castings Co., Wrightsville, Pa.

Wrightsville Hardware Co., Wrightsville, Pa.

**Hinges, Spring—**

ArCADE Mfg. Co., Freeport, Ill.

Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Cleveland Lock Co., Cleveland, O.

Columbian Hardware Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.

John C. Kupferle, St. Louis, Mo.

Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.  
Scovill Mfg. Co., Waterbury, Ct.  
Shelby Spring Hinge Co., Shelby, O.

Stover Mfg. Co., Freeport, Ill.

Susquehanna Castings Co., Wrightsville, Pa.

Union Mfg. Co., New Britain, Ct.

**Hinges, Spring, Loose**

**Joint—**

Cleveland Lock Co., Cleveland, O.

**Hinges, Spring, Water**

**Closet Door—**

Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Columbian Hardware Co., Cleveland, O.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Hinges, Strap and T. &c.—**

Cleveland Lock Co., Cleveland, O.

Griffin Mfg. Co., Erie, Pa.

F. E. Kohler & Co., Canton, O.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

Stanley Works, New Britain, Ct.

**Hinges, Strap and T. Corru-**

**gated—**

National Mfg. Co., Sterling, Ill.

Stanley Works, New Britain, Ct.

**Hinges, Tail Board—**

Blakelock Forging Co., Plantsville, Ct.

Griffin Mfg. Co., Erie, Pa.

**Hinges, Toilet—**

Hardware Supply Co., Grand Rapids, Mich.

**Hinges, Trap Door—**

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

**Hinges, Trunk—**

R. C. Jenkinson & Co., Newark, N. J.

McKinney Mfg. Co., Allegheny, Pa.

J. H. Sessions & Son, Bristol, Ct.

Stanley Works, New Britain, Ct.

**Hinges, Wagon, End Gate—**

Griffin Mfg. Co., Erie, Pa.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

**Hinges, Wash Tray—**

Stanley Works, New Britain, Ct.

**Hinges, Water Closet Seat—**

Illinois Malleable Iron Co., 39-32 W. Monroe St., Chicago, Ill.

Reading Hardware Co., Reading, Pa.

Stanley Works, New Britain, Ct.

**Hinges, Wrought, to Order—**

Hay-Budden Mfg. Co., Brooklyn, N. Y.

National Mfg. Co., Sterling, Ill.

**Hitches, Rope—**

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

**Hitching Hooks, Posts,**

**Rings, Ropes, Weights—**

(See Hooks, Posts, Rings, Ropes, Weights.)

**Hitching Post Rads—**

Wm. Bayley & Sons Co., Milwaukee, Wis.

Cover Mfg. Co., West Troy, N. Y.

Sargent & Co., 151 Leonard St., N. Y.

**Hitching Strap Adjusters—**

(See Adjusters, Hammock Rope and Hitching Strap.)

**Hobbing Machines, Worm**

**Wheel—**

Gould & Eberhardt, Newark, N. J.

**Hobble Chains—**

(See Chains, Hobbles.)

**Hobs, Worm-**  
Brown & Sharpe Mfg. Co., Providence, R. I.

**Hoda, Coal-**  
Sidney Shepard & Co., Buffalo, N. Y.  
Sturges & Burn Mfg. Co., Chicago, Ill.  
**Hoda, Mortar Brick, &c.-**  
Cleveland Wire Spring Co., Cleveland, O.

**Hoe Brackets-**  
(See Brackets, Hoe.)  
**Hoe Machinery-**  
(See Fork, Rake and Hoe Machinery.)

**Hoes, Eye-**  
D. & H. Scovill, Higganum, Ct.

**Hoes, Garden, Field, Mortar, &c.-**  
American Fork & Hoe Co., Cleveland, O.  
Bateman Mfg. Co., Grenloch, N. J.  
Continental Tool Co., Frankfort, N. Y.  
Peter Gerlach Co., Cleveland, O.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
F. E. Kohler & Co., Canton, O.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Hoes, Grape-**  
American Fork & Hoe Co., Cleveland, O.  
Syracuse Chilled Plow Co., Syracuse, N. Y.

**Hoes, Grubbing-**  
Bateman Mfg. Co., Grenloch, N. J.

**Hoes, Horse-**  
Bateman Mfg. Co., Grenloch, N. J.  
Cutaway Harrow Co., Higganum, Ct.

**Hoes, Scuffle-**  
American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Hoes, Street-**  
American Fork & Hoe Co., Cleveland, O.

**Hoes, Wheel-**  
Bateman Mfg. Co., Grenloch, N. J.

**Hog Rings, Ringers-**  
(See Rings and Ringers, Hog.)

**Hog Scrapers, Tongs-**  
(See Scrapers, Tongs.)  
**Hoisting Engines-**  
(See Engines, Hoisting.)

**Hoisting Machines-**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

**Automatic Machine Co., Bridgeport, Ct.**  
C. O. Bartlett & Snow Co., Cleveland, O.

**Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.**  
Brown Hoisting Machinery Co., Inc., Cleveland, O.

**Thos. Carlin's Sons, Allegheny, Pa.**  
Chisholm & Moore Mfg. Co., Cleveland, O.

**Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.**  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

**Eastern Machinery Co., New Haven, Ct.**  
Filler & Stowell Co., Milwaukee, Wis.

**Garry Iron & Steel Co., Cleveland, O.**  
Jeffrey Mfg. Co., Columbus, O.

**A. Leschen & Sons Rope Co., St. Louis, Mo.**  
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

**Nazareth Foundry & Machine Co., Nazareth, Pa.**  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

**Niles-Bement-Pond Co., 136-138 Liberty St., New York.**  
**F. E. Patch Mfg. Co., Rutland, Vt.**

**Pawling & Harnischfeger, Milwaukee, Wis.**  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**J. G. Speidel, Reading, Pa.**  
Warner Elevator Mfg. Co., Cincinnati, O.

**Weber Gas & Gasoline Engine Co., Kansas City, Mo.**  
Wellman-Seaver-Morgan Co., Cleveland, O.

**R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.**  
MERCHANTS.

**Baird Machinery Co., Pittsburgh, Pa.**  
Broderick & Bascom Rope Co., St. Louis, Mo.

**Browning Engineering Co., Cleveland, O.**  
Fairbanks Co., 416 Broome St., New York.

**Hill, Clarke & Co., Boston, Mass.**  
Lovegrove & Co., 143 N. 3d St., Philadelphia, Pa.

**Jos. F. McCoy Co., 157 Chambers St., New York.**  
McGeorge & Sons, Cleveland, O.

**Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.**  
Wickes Bros., Saginaw, Mich.

**Hoists, Ash-**  
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

**Hoists, Brick and Mortar-**  
Carlin Machinery & Supply Co., Allegheny, Pa.

**Thos. Carlin's Sons, Allegheny, Pa.**  
**Hoists, Chain and Rope-**  
Boston & Lockport Block Co., Boston.

**Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.**  
Brown Hoisting Machinery Co., Inc., Cleveland, O.

**Chisholm & Moore Mfg. Co., Cleveland, O.**  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

**Chas. G. Eckstein, 249 Centre St., N. Y.**  
E. Harrington Son & Co., Philadelphia.

**Lane Bros. Co., Poughkeepsie, N. Y.**  
A. Leschen & Sons Rope Co., St. Louis.

**Jos. F. McCoy Co., 157 Chambers St., New York.**  
National Fulton Brass Mfg. Co., Detroit, Mich.

**New Jersey Foundry & Machine Co., 9-15 Murray St., New York.**  
Ney Mfg. Co., Canton, O.

**Niles-Bement-Pond Co., 136-138 Liberty St., New York.**  
Pedrick & Ayer Co., 87 Liberty St., N. Y.

**J. G. Speidel, Reading, Pa.**  
Warsaw Elevator Co., Warsaw, N. Y.

**Yale & Towne Mfg. Co., 9-15 Murray St., New York.**  
**Hoists, Cylinder-**  
Garry Iron & Steel Co., Cleveland, O.

**Hoists, Electric-**  
Case Mfg. Co., Columbus, O.

**Cleveland Crane & Car Co., Wickliffe, O.**  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

**Garry Iron & Steel Co., Cleveland, O.**  
General Electric Co., Schenectady, N. Y.

**Lidgerwood Mfg. Co., 96 Liberty St., N. Y.**  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

**Northern Engineering Works, Detroit, Mich.**  
Pawling & Harnischfeger, Milwaukee, Wis.

Sprague Electric Co., 527-531 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**

Carlin Machinery & Supply Co., Allegheny, Pa.

Fairbanks Co., 416 Broome St., New York.

**Hoists, Friction Drum Belt-**  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

**Hoists, Gas and Gasoline-**  
Charter Gas Engine Co., Sterling, Ill.

**MERCHANTS.**

Carlin Machinery & Supply Co., Allegheny, Pa.

**Hoists, Hand-**  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland, O.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pawling & Harnischfeger, Milwaukee, Wis.

J. G. Speidel, Reading, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Hoists, Horse Power-**  
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

**Hoists, Hydraulic-**  
Garry Iron & Steel Co., Cleveland, O.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**MERCHANTS.**

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Hoists, Mine-**  
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

**Hoists, Piano-**  
Shipman, Bradt & Co., De Kalb, Ill.

**Hoists, Pneumatic-**  
American Air Compressor Works, 26 Cortlandt St., New York.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Northern Engineering Works, Detroit, Mich.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Rand Drill Co., 123 Broadway, New York.

Craig Ridgway & Son Co., Coatesville, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Whiting Foundry Equipment Co., Harvey, Ill.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.

Jos. F. McCoy Co., 157 Chambers St., New York.

McKiernan Drill Co., 120 Liberty St., New York.

S. Obermayer Co., Cincinnati, O.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

**Hoists, Portable-**  
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Inc., Cleveland, O.

Thos. Carlin's Sons, Allegheny, Pa.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

Garry Iron & Steel Co., Cleveland, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Craig Ridgway & Son Co., Coatesville, Pa.

J. G. Speidel, Reading, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.

**Hoists, Riveter-**  
Wm. Sellers & Co. (Inc.), Philadelphia.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Hoists, Screw-**  
Chisholm & Moore Mfg. Co., Cleveland, O.

**Hoists, Sidewalk-**  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Energy Elevator Co., 411 Cherry St., Philadelphia, Pa.

Howard Iron Works, Buffalo, N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

J. G. Speidel, Reading, Pa.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

**Hoists, Trolley-**  
Brown Hoisting Machinery Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Northern Engineering Works, Detroit, Mich.

J. G. Speidel, Reading, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

**Hoists, Worm-**  
Jones & Laughlin Steel Co., Pittsburgh.

**Holders, Bag-**  
Standard Scale & Supply Co., Pittsburgh, Pa.

**Holders, Bit, Brace, Die-**  
Butterfield & Co., Derby Line, Vt.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

**Holders, Blacking Box-**  
Wrightsville Hardware Co., Wrightsville, Pa.

**Holders, Boring Tool-**  
Patterson Tool & Supply Co., Dayton, O.

**Holders, Broom-**  
Raymond Mfg. Co., Corry, Pa.

A. C. Williams, Ravenna, O.

**Holders. Broom. Brush.****Comb. Soap. Wire—**

(See Household Articles, Wire.)

**Holders. Cabinet Scraper—**

Geo. H. Bishop &amp; Co., Cincinnati, O.

**Holders. Card—**

Edward Darby &amp; Sons, 233-235 Arch St., Philadelphia, Pa.

Sargent &amp; Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Wire Goods Co., Worcester, Mass.

**Holders. Champagne Bottle.****Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Holders. Christmas Tree—**

North Bros. Mfg. Co., Philadelphia, Pa.

**Holders. Copy—**

Scranton &amp; Co., New Haven, Ct.

**Holders. Cuff—**

Little River Mfg. Co., Seymour, Ct.

**Holders. Dictionary—**

Stover Mfg. Co., Freeport, Ill.

**Holders. Die—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

S. W. Card Mfg. Co., Mansfield, Mass.

J. M. Carpenter Tap &amp; Die Co., Pawtucket, R. I.

Etna Mfg. Co., 253 Broadway, New York.

Pratt &amp; Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Vells Bros. &amp; Co., Greenfield, Mass.

Wiley &amp; Russell Mfg. Co., Greenfield, Mass.

**Holders. Divider Pencil—**

Bemis &amp; Call Hardware &amp; Tool Co., Springfield, Mass.

Keuffel &amp; Esser Co., 127 Fulton St., New York.

**Holders. Door—**

Joseph Bardsley, 147-151 Baxter St., N. Y.

Brohard Co., Hutchinson St. &amp; Columbia Ave., Philadelphia, Pa.

Caldwell Mfg. Co., Rochester, N. Y.

National Mfg. Co., Sterling, Ill.

A. J. Phillips Co., Fenton, Mich.

Pullman Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Wilcox Mfg. Co., Aurora, Ill.

Wire Goods Co., Worcester, Mass.

**Holders. Drill and Tap—**

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Chandler &amp; Farquhar, Boston, Mass.

Cleveland Twist Drill Co., Cleveland, O.

Detroit Twist Drill Co., Detroit, Mich.

Ideal Machine Co., Hartford, Ct.

Wm. G. Le Count, So. Norwalk, Ct.

Pratt &amp; Whitney Co., Hartford, Ct.

A. D. Quint, Hartford, Ct.

Wells Bros. Co., Greenfield, Mass.

**Holders. Extension Bit and****Screw Driver—**

Millers Falls Co., 28 Warren St., N. Y.

**Holders. Flagstaff—**

Enterprise Mfg. Co., Philadelphia, Pa.

**Holders. Gas—**

L. O. Koven &amp; Bro., 50 Cliff St., N. Y.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

E. D. Wood &amp; Co., 490 Chestnut St., Philadelphia, Pa.

**Holders. Glasses—**

Fred J. Meyers Mfg. Co., Hamilton, O.

**Holders. Hose—**

(See Hose Attachments.)

**Holders. Key—**

Ames Sword Co., Chicopee, Mass.

**Holders. Knurl—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

**Holders. Letter—**

Little River Mfg. Co., Seymour, Ct.

**Holders. Match and Match****Box—**

Taplin Mfg. Co., New Britain, Ct.

**Holders. Micrometer—**

Chandler &amp; Farquhar, Boston, Mass.

**Holders. Nipple—**

Armstrong Mfg. Co., Bridgeport, Ct.

Curtis &amp; Curtis Co., Bridgeport, Ct.

Walworth Mfg. Co., Boston, Mass.

Wiley &amp; Russell Mfg. Co., Greenfield, Mass.

**Holders. Oil Stone—**

American Machinery Co., Grand Rapids, Mich.

Pike Mfg. Co., Pike, N. H.

**Holders. Photograph—**

Wire Goods Co., Worcester, Mass.

**Holders. Plate. Cup and****Saucer—**

Parker Wire Goods Co., Worcester, Mass.

Little River Mfg. Co., Seymour, Ct.

Wire Goods Co., Worcester, Mass.

**Holders. Reamer—**

Billings &amp; Spencer Co., Hartford, Ct.

Pratt &amp; Whitney Co., Hartford, Ct.

**Holders. Rope—**

J. D. Warren Mfg. Co., Chicago, Ill.

**Holders. Rubber Stamp—**

C. T. Williamson Wire Novelty Co., Newark, N. J.

**Holders. Sample—**

W. C. Heller &amp; Co., Montclair, N. J.

Fred J. Meyers Mfg. Co., Hamilton, O.

J. D. Warren Mfg. Co., Chicago, Ill.

**Holders. Sash—**

Lawrence Bros., Sterling, Ill.

**Holders. Soap—**

(See Household Articles.)

**Holders. Splasher—**

Wire Goods Co., Worcester, Mass.

**Holders. Spoon. Nickel and****Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

Rome Mfg. Co., Rome, N. Y.

**Holders. Stake. Wagon—**

Louden Machinery Co., Fairfield, Ia.

Sargent &amp; Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

**Holders. Test Tube—**

United States Clothes Pin Co., Montpelier, Vt.

**Holders. Tire Bolt—**

Wiley &amp; Russell Mfg. Co., Greenfield, Mass.

**Holders. Toilet Paper—**

Erie Specialty Co., Erie, Pa.

Fanner Mfg. Co., Cleveland, O.

Federal Mfg. Co., Cleveland, O.

Western Wire Goods Co., Buffalo, N. Y.

**Holders. Tool—**

Armstrong Bros. Tool Co., Chicago, Ill.

Billings &amp; Spencer Co., Hartford, Ct.

Goodell-Fratt Co., Greenfield, Mass.

Keystone Mfg. Co., Buffalo, N. Y.

O. K. Patent Tool Holder Co., Shelton, Ct.

Patterson Tool &amp; Supply Co., Dayton, O.

Pratt & Whitney Co., Hartford, Ct.  
Reading Machine & Tool Co., Reading,  
Pa.

Springfield Machine Screw Co., Springfield, Mass.

Sargent & Co., 151 Leonard St., N. Y.

John Chatillon & Sons, 85 Cliff St., N. Y.

Sargent & Co., 151 Leonard St., N. Y.

**Holders, Work-**  
Wheeling Mold & Foundry Co., Wheeling, W. Va.

**Hollow Augers, Drills, &c.-**  
(See Augers, Drills, &c.)

**Hollow Ware-**  
(See Ware, Hollow, Silver Plated, Steel, &c.)

**Hones, Carborundum-**  
Carborundum Co., Niagara Falls, N. Y.

**Hones, Emery and Corundum-**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

**Hones, Razor-**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Pike Mfg. Co., Pike, N. H.

A. L. Silberstein, 459-461 Broadway, N. Y.

**Hoof Knives-**  
(See Knives, Farriers')

**Hook and Eye Machinery-**  
Baird Machine Co., Oakville, Ct.

Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

A. H. Nilson Mach. Co., Bridgeport, Ct.

Waterbury Machine Co., Waterbury, Ct.

**Hook Head Bolts-**  
(See Bolts, Special.)

**Hooks and Cleats, Watd-robe-**

A. J. Phillips Co., Fenton, Mich.

**Hooks and Eyes, Garment-**  
Shrimpton Mfg. Co., 273 Church St., New York.

**Hooks and Eyes, Malleable-**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Sargent & Co., 151 Leonard St., N. Y.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Hooks and Eyes, Screw-**  
(See Wire Goods, Bright.)

**Hooks and Thimbles-**  
M. Lanz & Sons, Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis, Mo.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Hooks, Awning-**

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Hooks, Back Band-**  
(See Buckles, Back Band.)

**Hooks, Bale, Box, Hogs-head, &c.-**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Hooks, Beam-**  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Hooks, Belt-**

(See also Fasteners, Belt.)

Billings & Spencer Co., Hartford, Ct.

Bristol Co., Waterbury, Ct.

John H. Graham & Co., 113 Chambers St., New York.

E. Jencks Mfg. Co., Pawtucket, R. I.

Parker Wire Goods Co., Worcester, Mass.

Sargent & Co., 151 Leonard St., N. Y.

W. O. Talcott, Providence, R. I.

Upson Nut Co., Cleveland, O.

Wire Goods Co., Worcester, Mass.

**Hooks, Bench-**  
(See Stops, Bench.)

**Hooks, Bicycle Store-**

Wire Goods Co., Worcester, Mass.

**Hooks, Bird Cage-**

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Landers, Frary & Clark, New Britain, Ct.

Fred J. Meyers Mfg. Co., Hamilton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleunger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

C. T. Williamson Wire Novelty Co., Newark, N. J.

Wire Goods Co., Worcester, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

**Hooks, Boat-**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Hooks, Box, Cotton and Hay-**

Braunsdorf-Mueller Co., Elizabeth, N. J.

Hurwood Mfg. Co., Bridgeport, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

A. C. Williams, Ravenna, O.

**Hooks, Brine-**

Sargent & Co., 151 Leonard St., N. Y.

Wire Goods Co., Worcester, Mass.

**Hooks, Building Bracket-**  
Wagner Mfg. Co., Cedar Falls, Ia.

**Hooks, Bush-**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Hooks, Button-**  
Federal Mfg. Co., Cleveland, O.

Louis Sacks Iron Foundry, Newark, N. J.

**Hooks, Cabin Door-**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Cant-**

Boston & Lockport Block Co., Boston.

Peter Gerlach Co., Cleveland, O.

Keystone Drop Forge Works, Chester, Pa.

Lane & Bodley Co., Cincinnati, O.

Morley Bros., Saginaw, Mich.

Soule Steam Feed Works, Meridian, Miss.

Southern Engine & Boiler Works, Jackson, Tenn.

**Hooks, Chain—**

Trow & Holden, Barre, Vt.  
Case Mfg. Co., Columbus, O.  
James McKay & Co., Pittsburgh, Pa.  
Morley Bros., Saginaw, Mich.  
Standard Chain Co., Pittsburgh, Pa.  
J. H. Williams & Co., Brooklyn, N. Y.

**Hooks, Chandelier or Lamp—**

Arcade Mfg. Co., Freeport, Ill.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Landers, Frary & Clark, New Britain, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
A. C. Williams, Ravenna, O.  
Wire Goods Co., Worcester, Mass.

**Hooks, Clam—**

American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Hooks, Clothes Line—**

Landers, Frary & Clark, New Britain, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Pleunger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
Susquehanna Castings Co., Wrightsville, Pa.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
A. C. Williams, Ravenna, O.  
Wire Goods Co., Worcester, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Hooks, Coat, Hat, &c.—**

Atlas Mfg. Co., New Haven, Ct.  
Columbian Hardware Co., Cleveland, O.  
John H. Graham & Co., 113 Chambers St., New York.  
E. Jenckes Mfg. Co., Pawtucket, R. I.  
New York Lock Co., Branford, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
Susquehanna Castings Co., Wrightsville, Pa.  
Taylor & Boggis Foundry Co., Cleveland, O.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
C. T. Williamson Wire Novelty Co., Newark, N. J.  
A. C. Williams, Ravenna, O.  
Wire Goods Co., Worcester, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Hooks, Conductor—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
Berger Mfg. Co., Canton, O.  
Clark, Quilen & Morse, Peoria, Ill.  
Garry Iron & Steel Co., Cleveland, O.  
Iwan Bros., Streator, Ill.  
Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Corn and Tobacco—**

American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
National Saw Co., Newark, N. J.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Hooks, Cup and Shoulder—**

M. S. Brooks & Sons, Chester, Ct.  
E. Jenckes Mfg. Co., Pawtucket, R. I.  
Landers, Frary & Clark, New Britain, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.  
Spencer Wire Co., Worcester, Mass.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Desk, Mirror, Telegraph, Tassel, Brush, Duster, Kitchen, &c.—**

M. S. Brooks & Sons, Chester, Ct.  
Sargent & Co., 151 Leonard St., N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Drive—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Hooks, S and S—**

Bridgeport Chain Co., Bridgeport, Ct.  
M. S. Brooks & Sons, Chester, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Plume & Atwood Mfg. Co., Waterbury, Ct.  
Sargent & Co., 151 Leonard St., N. Y.  
Smith & Edge Mfg. Co., Bridgeport, Ct.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Fire Pail—**

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Floor Pulley—**

Louden Machinery Co., Fairfield, Ia.  
F. E. Myers & Bro., Ashland, O.  
Ney Mfg. Co., Canton, O.  
Parker Wire Goods Co., Worcester, Mass.  
J. E. Porter Co., Ottawa, Ill.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Hooks, Gait Topsail—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Hooks, Gate and Door—**

Covert Mfg. Co., West Troy, N. Y.  
Covert's Saddlery Works, Farmer, N. Y.  
Landers, Frary & Clark, New Britain, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Grass-**  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
W. C. Heller & Co., Montclair, N. J.

**Hooks, Hammock-**  
M. S. Brooks & Sons, Chester, Ct.  
Keystone Drop Forge Works, Chester, Pa.  
Landers, Frary & Clark, New Britain, Ct.  
I. E. Palmer, Middletown, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Harness-**  
Arcade Mfg. Co., Freeport, Ill.  
Billings & Spencer Co., Hartford, Ct.  
S. Cheney & Son, Manlius, N. Y.  
Donovan Wire & Iron Co., Toledo, O.  
Ney Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

Susquehanna Castings Co., Wrightsville, Pa.  
A. C. Williams, Ravenna, O.  
Wire Goods Co., Worcester, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Hooks, Hasps and Staples-**  
(See Wrought Iron Goods.)

**Hooks, Hitching-**  
Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Hog-**  
John Chatillon & Sons, 85 Cliff St., N. Y.

**Hooks, Hoist and Crane-**  
Case Mfg. Co., Columbus, O.  
Keystone Drop Forge Works, Chester, Pa.  
J. H. Williams & Co., Brooklyn, N. Y.

**Hooks, Hop-**  
American Fork & Hoe Co., Cleveland, O.

**Hooks, Ice-**  
(See Ice Harvesting Tools.)

**Hooks, Jamb-**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

**Hooks, Lambrequin-**  
M. S. Brooks & Sons, Chester, Ct.

**Hooks, Lantern, Safety-**  
Wire Goods Co., Worcester, Mass.

**Hooks, Log and Switch Chain-**  
Standard Chain Co., Pittsburgh, Pa.

**Hooks, Lug, Timber-**  
Morley Bros., Saginaw, Mich.

**Hooks, Meat-**  
M. S. Brooks & Sons, Chester, Ct.

Enterprise Mfg. Co., Philadelphia, Pa.  
Hurwood Mfg. Co., Bridgeport, Ct.

Landers, Frary & Clark, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.  
Sargent & Co., 151 Leonard St., N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Mirror-**  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Molding-**  
Parker Wire Goods Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Overhead Carrying Track-**

Case Mfg. Co., Columbus, O.  
A. Leschen & Sons Rope Co., St. Louis, Mo.

F. E. Myers & Bro., Ashland, O.

**Hooks, Painters' Ladder-**  
Taplin Mfg. Co., New Britain, Ct.

Wire Goods Co., Worcester, Mass.

**Hooks, Picture-**  
M. S. Brooks & Sons, Chester, Ct.  
Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

Emerson P. Turner Mfg. Co., Norwich, Ct.  
C. T. Williamson Wire Novelty Co., Newark, N. J.

Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Hooks, Pipe-**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Crane Co., Chicago, Ill.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Potato, Manure, &c.-**

American Fork & Hoe Co., Cleveland, O.  
Continental Tool Co., Frankfort, N. Y.  
Iowa Farming Tool Co., Ft. Madison, Ia.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Hooks, Saddle-**  
Wire Goods Co., Worcester, Mass.

**Hooks, Shackle-**  
Keystone Drop Forge Works, Chester, Pa.

**Hooks, Sign, Joint, &c.-**  
Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Staple, &c.-**  
(See Wrought Iron Goods.)

**Hooks, Store Rack-**  
Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Strap-**  
E. Jenckes Mfg. Co., Pawtucket, R. I.

Wire Goods Co., Worcester, Mass.

**Hooks, Tassel-**  
M. S. Brooks & Sons, Chester, Ct.

**Hooks, Telegraph-**  
M. S. Brooks & Sons, Chester, Ct.

**Hooks, Ticket-**  
Sargent & Co., 151 Leonard St., N. Y.

Wire Goods Co., Worcester, Mass.

**Hooks, Timber Carrying-**  
Peter Gerlach Co., Cleveland, O.

Morley Bros., Saginaw, Mich.

**Hooks, Toilet and Towel-**  
Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Wardrobe, Revolving-**  
Hardware Supply Co., Grand Rapids, Mich.



**Hooks, Weeding—**  
F. E. Kohler & Co., Canton, O.

**Hooks, Well Wheel—**  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

**Hooks, Whistle Cord—**  
American Railway Supply Co., 24 Park Place, New York.

**Hoop Brass—**  
(See Brass.)

**Hoops and Bands—**  
American Steel Hoop Co., Pittsburgh, Pa.  
Jones & Laughlin Steel Co., Pittsburgh.  
Pittsburgh Steel Co., Pittsburgh, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
Cabeen & Co., Real Estate Trust Bldg., Philadelphia, Pa.  
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
John B. Newkirk & Co., 15th & Market Sts., Philadelphia, Pa.  
Ogden & Wallace, 577 Greenwich St., New York.  
Pierson & Co., 29 Broadway, New York.  
Hornace T. Potts & Co., 316 N. 3d St., Philadelphia, Pa.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
Wm. H. Wallace & Co., 66 Broadway, New York.

**Hoops and Bands, Galvanized—**  
(See Galvanized Angles, Bars, &c.)

**Hoops, Mast—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Hoops, Seamless Cheese—**  
Sturges & Burn Mfg. Co., Chicago, Ill.

**Hoops, Tub—**  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

**Hoppers, Coal and Gas Producer—**  
American Furnace & Machine Co., Pittsburgh, Pa.

**Hoppers, Shop—**  
S. Cheney & Son, Manlius, N. Y.

**Horns, Fog—**  
Edson Mfg. Co., Boston, Mass.

**Horns, Shoe—**  
International Silver Co., 9-13 Maiden Lane, New York.

**R. C. Jenkinson & Co., Newark, N. J.**

**Horse Brushes, Clippers, &c.—**  
(See Brushes, Clippers, &c.)

**Horse Hay Forks—**  
(See Haying Tools.)

**Horse Powers—**  
Broderick & Bascom Rope Co., St. Louis, Mo.

**Carlin Machinery & Supply Co., Allegheny, Pa.**

**Thomas Carlin's Sons, Allegheny, Pa.**

**Horse Radish Graters—**  
(See Graters, Horse Radish, &c.)

**Horsehoe Iron—**  
(See Iron, Horseshoe.)

**Horseshoers' Vises—**  
(See Vises, Horseshoers'.)

**Horse Tooth Rasps—**  
(See Rasps, Horse Tooth.)

**Hose, Air Tool—**  
Fedrick & Ayer Co., 87 Liberty St., N. Y.  
and Drill Co., 128 Broadway, New York.

**Hose Attachments (Menders, Couplings, Bands, Holders, Reducers, Clamps, Cans, &c.)—**  
W. J. Clark Co., Salem, O.  
Edson Mfg. Co., Boston, Mass.  
John H. Graham & Co., 113 Chambers St., New York.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
F. E. Kohler & Co., Canton, O.  
John C. Kupferle, St. Louis, Mo.  
McNab & Harlin Mfg. Co., 56 John St., New York.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.

**Hose, Cotton—**  
Crane Co., Chicago, Ill.

**Hose Reels—**  
(See Reels, Hose.)

**Hose, Rubber—**  
Whitman & Barnes Mfg. Co., Akron, O.

**Hot Air Cook Pans—**  
(See Pans, Cook, Hot Air.)

**Hotel and Restaurant Cooking Apparatus (Stock Boilers, Roasting Ovens, Vegetable Boilers and Steamers, Oyster Stewers, Furnace and Caldron, &c.)—**  
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

**Hot House Pulleys—**  
(See Pulleys, Hot House.)

**Hot Plates—**  
(See Plates, Hot.)

**Hound Plates—**  
(See Plates, Hound.)

**House Bells, Heaters, Numbers—**  
(See Bells, Furnaces and Boilers, Letters.)

**Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—**  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Kilbourne Mfg. Co., Troy, N. Y.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.  
Parker Wire Goods Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.  
Wickwire Bros., Cortland, N. Y.  
Wire Goods Co., Worcester, Mass.

**House Movers—**  
John Eichleay, Jr., Co., Pittsburgh, Pa.

**Houses, Portable—**  
Phenix Mfg. Co., Milwaukee, Wis.

**Houses, Wire Summer—**  
Estey Wire Works Co., 58 Fulton St., New York.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.

**Hub Boring—**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Hub Boring Machines—**  
Silver Mfg. Co., Salem, O.

**Hub Machines, Bicycle—**  
Dreses Machine Co., Cincinnati, O.  
Fox Machine Co., Grand Rapids, Mich.  
Garvin Machine Co., Spring and Varick  
Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

**Hubs, Bicycle—**

Federal Mfg. Co., Cleveland, O.  
New Britain Hardware Mfg. Co., New  
Britain, Ct.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Hubs, Wire Wheel—**

Federal Mfg. Co., Cleveland, O.

**Hubs, Wire Wheel, Ve-**  
**hicle—**  
New Britain Hardware Mfg. Co., New  
Britain, Ct.

**Hulls and Barges, Steel—**  
American Bridge Co., 100 Broadway, N. Y.

**Huskers, Pins and Gloves—**  
Cleveland Lock Co., Cleveland, O.  
John H. Graham & Co., 113 Chambers  
St., New York.

**Hydrant Chain—**  
(See Chain, Hydrant.)

**Hydrants and Street Wash-**  
**ers—**

Chapman Valve Mfg. Co., Boston, Mass.  
Deming Co., Salem, O.  
Dimmick Pipe Co., Birmingham, Ala.  
Fairbanks Co., 416 Broome St., New York.  
Flint & Walling Mfg. Co., Kendallville,  
Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Kennedy Valve Mfg. Co., 58 Beekman  
St., New York.

John C. Kupperle, St. Louis, Mo.  
McNab & Harlin Mfg. Co., 56 John St.,  
New York.

F. E. Myers & Bro., Ashland, O.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Union Hardware Co., New Britain, Ct.

R. D. Wood & Co., 400 Chestnut St.,  
Philadelphia, Pa.

**Hydraulic Accumulators,**  
**Cranes, &c.—**  
(See Accumulators, Cranes, &c.)

**Hydraulic Machinery—**

Henry Aiken, Pittsburgh, Pa.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Diamond Drill & Machine Co., Birds-  
boro, Pa.

Richard Dudgeon, 24-26 Columbia St.,  
New York.

C. F. Elmes Engineering Works, 253-259  
Fulton St., Chicago, Ill.

Fischer Foundry & Machine Co., Pitts-  
burgh, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.  
S. V. Huber & Co., Pittsburgh, Pa.

Julian Kennedy, Pittsburgh, Pa.  
Walter Kennedy, Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Pennsylvania Engineering Works, New  
Castle, Pa.

Philadelphia Roll & Machine Co., 23d  
St. & Washington Ave., Philadelphia.

Wm. Sellers & Co. (Inc.), Philadelphia.  
S. R. Smythe Co., Pittsburgh, Pa.

William Tod Co., Youngstown, O.  
Velte Foundry & Machine Co., Pitts-  
burgh, Pa.

Waterbury Farrel Foundry & Machine  
Co., Waterbury, Ct.  
Watson-Stillman Co., 204-210 East 43d St.,  
New York.

Wickes Bros., Saginaw, Mich.  
R. D. Wood & Co., 400 Chestnut St.,  
Philadelphia, Pa.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
Jos. F. McCoy Co., 157 Chambers St.,  
New York.

McGeorge & Sons, Cleveland, O.  
Power Specialty Co., 126 Liberty St.,  
New York.

Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

**Hydro-Carbon Lamps—**  
(See Lamps, Gasoline Gas.)

**Hydrometers—**  
American Steam Gauge & Valve Co.,  
Boston, Mass.

Riggs & Bros., 310 Market St., Philadel-  
phia, Pa.

**Ice Axes, Bars, &c.—**  
(See Axes, Bars, &c.)

**Ice Bowls—**  
(See Bowls, Silver Plated.)

**Ice Chests—**  
(See Refrigerators and Ice Chests.)

**Ice Cream Tubs—**  
(See Pails.)

**Ice Harvesting Tools**  
**(Augers, Breakers, Chisels,**  
**Forks, Bars, Grapplers,**  
**Hooks, Markers, Meas-**  
**uring Irons, Planes, Plows,**  
**House and Car Run-**  
**saws, Shavers, Scrapers,**  
**Adzes and Scoop Nets)—**

American Fork & Hoe Co., Cleveland, O.  
Branchville Ice Tool Works, Branchville,  
Ct.

Henry Disston & Sons, Philadelphia, Pa.  
Peter Gerlach Co., Cleveland, O.  
Wm. T. Wood & Co., Arlington, Mass.

**Ice Machinery—**  
Vilter Mfg. Co., Milwaukee, Wis.

**Igniters, Gas Engine—**  
Holtzer-Cabot Electric Co., Boston, Mass.

**Implement, Agricultural**  
**and Garden—**  
(See Agricultural Implements.)

**Implement, Gun—**  
(See Gun Implements.)

**Importers, Electric Light**  
**Carbons—**

Hugo Reisinger, 11 Broadway, New York.

**Importers, Hardware and**  
**Cutlery—**

Hermann Boker & Co., 101 Duane St.,  
New York.

Jos. F. McCoy Co., 157 Chambers St.,  
New York.

Smith & Hemenway Co., 236 Broadway,  
New York.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

**Importers, Iron and Steel—**  
Reed F. Blair & Co., Pittsburgh, Pa.

Brown-Wales Co., Boston, Mass.  
Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Arthur C. Harvey Co., Boston, Mass.  
C. W. Leavitt & Co., 15 Cordant St.,  
New York.

James Lee & Co., 76 William St., N. Y.

- N. Lilienberg, Bets Bldg., Philadelphia, Pa.  
A. Milne & Co., 1 Broadway, New York.  
J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.  
John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.  
E. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.  
Pierson & Co., 29 Broadway, New York.  
Pilling & Crane, Girard Bldg., Philadelphia, Pa.  
Pittsburgh Railway Supply Co., Pittsburgh, Pa.  
Horace T. Potts & Co., 316 N. 3d St., Philadelphia, Pa.  
Stogers, Brown & Co., Cincinnati, O.  
Frank Samuel, Harrison Bldg., Philadelphia, Pa.  
Chas. G. Shepard, Buffalo, N. Y.  
W. H. Wallace & Co., 66 Broadway, New York.  
Whealock, Lovejoy & Co., 23 Cliff St., New York.  
E. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.  
**Importers, Pocket Cutlery, Razors, Scissors and Table Cutlery—**  
Joseph F. McCoy Co., 157 Chambers St., New York.  
**Incandescent Lamps—**  
(See Lamps, Incandescent.)  
**Inclinometers—**  
Keuffel & Esser Co., 127 Fulton St., New York.  
L. S. Starrett Co., Athol, Mass.  
**Indexing Heads—**  
(See Heads, Indexing and Dividing.)  
**Index Plates For Gear Cutting—**  
Gleason Works, Rochester, N. Y.  
**Index Plates For Gear Cutting Machines—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
**Index Plates For Milling Machines—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Ideal Machine Co., Hartford, Ct.  
**Indian Club Hangers—**  
(See Hangers, Dumb Bell and Indian Club.)  
**Indian Clubs—**  
(See Clubs, Indian.)  
**Indicators, Angle—**  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
**Indicators, Center—**  
J. T. Slocomb & Co., Providence, R. I.  
**Indicators, Horse-Power—**  
Keuffel & Esser Co., 127 Fulton St., New York.  
**Indicators, Oven—**  
Helios-Upton Co., Peabody, Mass.  
**Indicators, Speed—**  
American Steam Gauge & Valve Co., Boston, Mass.  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
Edward Brown, 31½ Walnut St., Philadelphia, Pa.  
Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.  
Henry Diston & Sons, Philadelphia, Pa.  
W. N. Durant Co., Milwaukee, Wis.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
Simonds Mfg. Co., Fitchburg, Mass.  
L. S. Starrett Co., Athol, Mass.  
Veeder Mfg. Co., Hartford, Ct.  
R. Woodman Mfg. & Supply Co., Boston.  
Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.  
**Indicators, Steam Engine—**  
American Steam Gauge & Valve Co., Boston, Mass.  
Ashton Valve Co., Boston, Mass.  
Crosby Steam Gauge & Valve Co., Boston.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
**Indicators, Test—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
L. S. Starrett Co., Athol, Mass.  
**Ingots, Bronze—**  
E. W. Vanduzen Co., Cincinnati, O.  
**Ingots, Manganese Bronze—**  
Paul S. Reeves & Son, Philadelphia, Pa.  
**Ingots, Phosphor Bronze—**  
Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
Paul S. Reeves & Son, Philadelphia, Pa.  
**Injectors, Boiler—**  
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Jenkins Bros., 71 John St., New York.  
Lunkenheimer Co., Cincinnati, O.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
Wm. Sellers & Co. (Inc.), Philadelphia, N. A. Watson, Erie, Pa.  
**Inks, Drawing—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Inkstands—**  
(See Stationers' Hardware.)  
**Inkstands, Silver Plated—**  
(See Desk Specialties.)  
**Insect Powder Guns—**  
(See Guns, Insect Powder.)  
**Inspection and Insurance, Steam Boiler—**  
Hartford Steam Boiler Inspection & Insurance Co., Hartford, Ct.  
**Inspectors' Scales, Leather—**  
(See Scales, Leather Inspectors.)  
**Inspirators—**  
(See Injectors, Boiler.)  
**Instruments, Drawing—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.  
**Instruments, Engineers'—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Instruments, Forestry—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Instruments, Leveling—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Instruments, Leveling and Squaring—**  
Athol Machine Co., Athol, Mass.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.  
**Instruments, Mathematical—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Instruments, Nautical—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Riggs & Bro., 310 Market St., Philadelphia, Pa.  
**Instruments, Surveying—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.

**Insulating Machinery for Wire—**

Farrel Foundry & Mach. Co., Ansonia, Ct.  
**Insulating Materials—**  
 Samuel Cabot, Boston, Mass.  
 Standard Paint Co., 100 William St., New York.

**Insulators, Lava, Electric—**  
 Stanley G. Flagg & Co., Philadelphia, Pa.

**Insulators, Trolley—**  
 Billings & Spencer Co., Hartford, Ct.

General Electric Co., Schenectady, N. Y.

**Insurance, Steam Boiler—**  
 Hartford Steam Boiler Inspection & Insurance Co., Hartford, Ct.

**Interfering Boots—**  
 (See Boots, Interfering.)

**Iron and Brass, Ornamental Grilles, Gates, Crestings, Finials, Window Guards, Vanes, Wickets, Doors, &c.—**

W. J. Adam, Joliet, Ill.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Berger Mfg. Co., Canton, O.  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.  
 Buffalo Wire Works Co., Buffalo, N. Y.  
 City Forge & Iron Works, Dayton, O.  
 Clinton Wire Cloth Co., Clinton, Mass.  
 Curry & Vannan, Danville, Pa.  
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
 Donovan Wire & Iron Co., Toledo, O.  
 Enterprise Foundry & Fence Co., Indianapolis, Ind.  
 Estey Wire Works Co., 59 Fulton St., New York.  
 Forest City Steel & Iron Co., Cleveland.  
 Gilbert & Bennett Mfg. Co., 271 Broadway, New York.  
 Glen Mfg. Co., Ellwood City, Pa.  
 Howard & Morse, 45 Fulton St., N. Y.  
 W. N. Kratzer & Co., Pittsburgh, Pa.  
 Ludlow-Saylor Wire Co., St. Louis, Mo.  
 McKenna Bros. Brass Co., Pittsburgh, Pa.  
 Fred J. Meyers Mfg. Co., Hamilton, O.  
 Murdock Corporation, Boston, Mass.  
 National Iron & Brass Co., Cleveland, O.  
 Stewart Iron Works, Cincinnati, O.  
 E. H. Titchener & Co., Binghamton, N. Y.  
 W. S. Tyler Co., Cleveland, O.  
 Van Dorn Iron Works Co., Cleveland, O.  
 Wright Wire Co., Worcester, Mass.

**Iron and Brass Studs—**  
 (See Studs, Brass and Iron.)

**Iron and Steel, Brokers and Merchants—**

Bassett-Presley Co., Cleveland, O.  
 Reed F. Blair & Co., Pittsburgh, Pa.  
 M. J. & M. Blake, 97 10th Ave., N. Y.  
 Bole, Ross & Co., Pittsburgh, Pa.  
 Bourne-Fuller Co., Cleveland, O.  
 Brown-Wales Co., Boston, Mass.  
 Cabene & Co., Real Estate Trust Building, Philadelphia, Pa.  
 Chicago House Wrecking Co., 35th and Iron Sts., Chicago, Ill.  
 Justice Cox, Jr., & Co., Ltd., Bullitt Bldg., Philadelphia, Pa.  
 R. M. Cunliffe, 1140-1142 Washington Ave., Philadelphia, Pa.  
 J. K. Dimmick & Co., 2023 New Land Title Bldg., Philadelphia, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Garry Iron & Steel Co., Cleveland, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.  
 Walter Graham, Harrison Bldg., Philadelphia, Pa.  
 Arthur C. Harvey Co., Boston, Mass.  
 C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.  
 George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.  
 Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.  
 Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.  
 J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.  
 John Leonard & Co., 220 Broadway, N. Y.  
 Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

N. Lillenberg, Betz Bldg., Philadelphia.  
 A. Milne & Co., 1 Broadway, New York.  
 J. J. Mohr, 151 So. 4th St., Philadelphia, Pa.

Geo. Nash & Co., 24 So. Clinton St., Chicago, Ill.

John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.

Ogden & Wallace, 57 Greenwich St., N. Y.

F. R. Phillips & Sons Co., Philadelphia.

Pierson & Co., 23 Broadway, N. Y.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.

Poulterer & Co., Bullitt Bldg., Philadelphia, Pa.

J. Wesley Pullman, Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Frank Samuel, 15th and Market Sts., Philadelphia, Pa.

Shook & Fletcher, Birmingham, Ala.

Morton B. Smith Co., 243 Front St., N. Y.

W. P. Snyder & Co., Pittsburgh, Pa.

Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Waite, Raulet & Co., Boston, Mass.

W. H. Wallace & Co., 66 Broadway, N. Y.

Wetherell Bros., 120 Liberty St., N. Y.

Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

Francis Wister, 1437 Chestnut St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

**Iron and Steel, Hexagon—**  
 Lockhart Iron & Steel Co., Pittsburgh, Pa.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
 Bourne-Fuller Co., Cleveland, O.

**Iron and Steel Stairs—**  
 (See Stairs, Iron and Steel.)

**Iron and Steel, Swedish—**  
**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
 Bourne-Fuller Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

Arthur C. Harvey Co., Boston, Mass.

N. Lillenberg, Betz Bldg., Philadelphia, Pa.

A. Milne & Co., 1 Broadway, New York.  
 Pierson & Co., 23 Broadway, New York.

Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.

Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

**Iron and Steel Wire—**  
(See Wire, Iron and Steel, Market, Fence, Stone, &c.)

**Iron Awnings—**  
(See Awnings, Iron.)

**Iron, Axle—**  
(See Axles, Iron.)

Lockhart Iron & Steel Co., Pittsburgh, Pa.

**Iron, Bar—**  
B. M. Jones & Co., Boston, Mass.

Nazareth Foundry & Machine Co., Nazareth, Pa.

**Iron Bars, Cold Rolled Sheet, Corrugated, &c.—**  
(See Bars, Corrugated, &c.)

**Iron Bedsteads, Lamps, &c.—**  
(See Bedsteads, Lamps, &c.)

**Iron, Boiler Brace—**  
Lockhart Iron & Steel Co., Pittsburgh, Pa.

**Iron, Breakers, Pig—**  
(See Breakers, Pig Iron.)

**Iron Ceiling and Siding—**  
(See Ceiling and Siding, Iron and Steel.)

**Iron Faucets—**  
(See Faucets, Iron.)

**Iron, Horseshoe—**  
American Steel Hoop Co., Pittsburgh, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Zug & Co., Ltd., Pittsburgh, Pa.

**Ironing Boards, Tables—**  
(See Boards, Tables.)

**Iron, Forging—**  
Zug & Co., Ltd., Pittsburgh, Pa.

**Iron Levels—**  
(See Levels, Iron, also Plumbs and Levels.)

**Iron Wire, Weather-proof—**  
(See Wire, Electrical.)

**Iron, Machine Knife—**  
Zug & Co., Ltd., Pittsburgh, Pa.

**Iron Magazines—**  
(See Magazines, Iron.)

**Iron, Ornamental—**  
Berger Mfg. Co., Canton, O.

**Iron, Pig—**  
American Steel Hoop Co., Pittsburgh, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Bon Air Coal & Iron Co., Nashville, Tenn.

Columbus Iron & Steel Co., Columbus, O.

J. K. Dimmick & Co., 203 New Land Title Bldg., Philadelphia, Pa.

Dominion Iron & Steel Co., Sydney, Nova Scotia, Canada.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Hickman, Williams & Co., Chicago, Ill.

Logan Iron & Steel Co., Burnham, Pa.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Virginia Iron, Coal & Coke Co., Bristol, Va.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**MERCHANTS.**  
Reed F. Blair & Co., Pittsburgh, Pa.

Bole, Boss & Co., Pittsburgh, Pa.

Bourne-Fuller Co., Cleveland, O.

Cabene & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Justice Cox, Jr. & Co., Ltd., Bullitt Bldg., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Field-Evans Iron Co., Cincinnati, O.

J. H. Hillman & Son, Pittsburgh, Pa.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.

C. W. Leavitt & Co., 15 Cortlandt St., New York.

James Lee & Co., 76 William St., N. Y.

N. Lillienberg, Betz Bldg., Philadelphia, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia, Pa.

F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

J. Wesley Pullman, Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Frank Samuel, 15th & Market Sts., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

W. P. Snyder & Co., Pittsburgh, Pa.

Wheeler, Milfill & Co., Fidelity Bldg., Philadelphia, Pa.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

**Iron, Pig, Basic—**  
La Belle Iron Works, Steubenville, O.

**Iron, Pig, Charcoal—**  
Columbus Iron & Steel Co., Columbus, O.

J. K. Dimmick & Co., 203 New Land Title Bldg., Philadelphia, Pa.

Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

Logan Iron & Steel Co., Burnham, Pa.

Superior Charcoal Iron Co., Grand Rapids, Mich.

Virginia Iron, Coal & Coke Co., Bristol, Va.

**MERCHANTS.**  
J. H. Hillman & Son, Pittsburgh, Pa.

Geo. T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.

J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.

J. Wesley Pullman, 238 S. 3d St., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

**Iron, Rivet and Stay Bolt—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

American Steel Hoop Co., Pittsburgh, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Logan Iron & Steel Co., Burnham, Pa.

Republic Iron & Steel Co., Chicago, Ill.

**MERCHANTS.**  
Bassett-Tresley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.  
C. B. Houston & Co., Girard Bldg.,  
Philadelphia, Pa.

B. M. Jones & Co., Boston, Mass.  
Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.

**Iron Roofing, Rosettes—**  
(See Roofing, Rosettes.)

**Irons, Balling—**  
Covert Mfg. Co., W. Troy, N. Y.

**Irons, Binding—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.

**Irons, Burnishing—**  
Dame, Stoddard & Co., Boston, Mass.

**Irons, Calking—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
L. & I. J. White Co., Buffalo, N. Y.

**Irons, Canopy Top, Car-  
riage—**

E. D. Clapp Mfg. Co., Auburn, N. Y.  
**Irons, Chair and Stool—**  
Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

**Irons, Corner and Brace—**  
National Mfg. Co., Sterling, Ill.

Richards Mfg. Co., Aurora, Ill.  
Sargent & Co., 151 Leonard St., N. Y.  
Stanley Works, New Britain, Ct.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Wilcox Mfg. Co., Aurora, Ill.

**Irons, Curling—**  
Arcade Mfg. Co., Freeport, Ill.

Federal Mfg. Co., Cleveland, O.

**Irons, Gear, Carriage and  
Wagon—**

E. D. Clapp Mfg. Co., Auburn, N. Y.  
**Irons, Golf—**  
Springfield Drop Forging Co., Spring-  
field, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

**Irons, Grappling—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Irons, Hay Rack—**  
Louden Machinery Co., Fairfield, Ia.

**Irons, Laundry and Tailor,  
Electric—**

United Electric Heating Co., Detroit,  
Mich.

**Irons, Measuring, Ice—**  
(See Ice Harvesting Tools.)

**Irons, Pinching—**  
Arcade Mfg. Co., Freeport, Ill.

**Irons, Pinking—**  
Dame, Stoddard & Co., Boston, Mass.

**Irons, Plane—**  
Buck Bros., Millbury, Mass.

Chas. Buck, Millbury, Mass.  
Chapin-Stephens Co., Pine Meadow, Ct.

Ohio Tool Co., Columbus, O.  
Stanley Rule & Level Co., New Britain, Ct.

L. & I. J. White Co., Buffalo, N. Y.

**Irons, Porch Post—**  
(See Supports, Porch.)

**Irons, Rub—**  
John C. Kupferle, St. Louis, Mo.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

**Irons, Sd., Laundry, &c.**  
Blacklock Foundry, So. Pittsburg, Tenn.

Enterprise Mfg. Co., Philadelphia, Pa.

Fawkes Mfg. Co., Minneapolis, Minn.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

John C. Kupferle, St. Louis, Mo.  
Pleuger & Henger Mfg. Co., St. Louis,  
Reading Hardware Co., Reading, Pa.

Stover Mfg. Co., Freeport, Ill.  
A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Irons, Sash Cord—**  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pullman Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Tower & Lyon Co., 95 Chambers St.,  
New York.

Union Mfg. Co., New Britain, Ct.

Wire Goods Co., Worcester, Mass.

**Irons, Sash Ribbon and  
Wire—**

Pullman Mfg. Co., Rochester, N. Y.

**Irons, Stanchion—**  
S. Cheney & Son, Manlius, N. Y.

**Iron, Staybolt and Rivet—**  
Zug & Co., Ltd., Pittsburgh, Pa.

**MERCHANTS.**  
Bourne-Fuller Co., Cleveland, O.

**Irons, Tuvare—**  
Arcade Mfg. Co., Freeport, Ill.

John C. Kupferle, St. Louis, Mo.

J. W. Paxson Co., Philadelphia, Pa.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Root Bros. Co., Plymouth, O.

Silver Mfg. Co., Salem, O.

**MERCHANTS.**  
Brown-Wales Co., Boston, Mass.

**Irons, Waffle—**  
Blacklock Foundry, So. Pittsburg, Tenn.

Danger Stove & Mfg. Div., Am. Stove  
Co., Cleveland, O.

Reading Hardware Co., Reading, Pa.

**Iron, Welding—**  
(See Welding, Iron and Steel, Thermit  
Process.)

**Iron Work, Builders' (Ve-  
randa Columns, Orn-  
amental, Porticoes, Coal  
Holes and Covers, Side-  
walk Lights, Area  
Gratings, Ash Pit Doors,  
Ventilating Plates, Sash,  
Skylight Guards, Canopies,  
Balconies, Area Railings,  
&c.)**

E. H. Allen Foundry Co., Corning, N. Y.

Wm. Bayley & Sons Co., Milwaukee, Wis.

Bethlehem Foundry & Machine Co., South  
Bethlehem, Pa.

A. Buch's Sons Co., Elizabethtown, Pa.

S. Cheney & Son, Manlius, N. Y.

J. B. & J. M. Cornell, 26th St. and 11th  
Ave., New York.

Donovan Wire & Iron Co., Toledo, O.

Forest City Steel & Iron Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

Glen Mfg. Co., Ellwood City, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket,  
R. I.

Hess, Snyder & Co., Massillon, O.

W. N. Kratzer & Co., Pittsburg, Pa.

John C. Kupferle, St. Louis, Mo.

Matthew Lanz & Sons, Pittsburg, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

National Iron & Wire Co., Cleveland, O.

Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Southern Engine & Boiler Works, Jackson, Tenn.  
 Stewart Iron Works, Cincinnati, O.  
 Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
 Van Dorn Iron Works Co., Cleveland, O.  
 West Side Foundry Co., Troy, N. Y.  
 Wright Wire Co., Worcester, Mass.

### **Iron Working Machinery—**

**MERCHANTS.**  
 Hill, Clarke & Co., Boston, Mass.

**Irrigation Pumps—**  
 (See Pumps, Irrigation.)

**Ivory Rules—**  
 (See Rules, Ivory.)

**Jack Chain—**  
 (See Chain.)

**Jack and Jenny Bobbins—**  
 E. B. Estes & Sons, 45-47 John St., N. Y.

**Jacker Pumps—**  
 (See Pumps, Jacket.)

**Jacks, Ball Bearing—**  
 A. O. Norton, Boston, Mass.  
 Smith & Hemenway Co., 296 Broadway, New York.

**Jacks, Boot—**  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plueger & Henger Mfg. Co., St. Louis, Mo.  
 Reading Hardware Co., Reading, Pa.  
 Root Bros. Co., Plymouth, O.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Louis Sacks Iron Foundry, Newark, N. J.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Wrightsville Hardware Co., Wrightsville, Pa.

### **Jacks, Carriage and Wagon—**

Arcade Mfg. Co., Freeport, Ill.  
 Boston & Lockport Block Co., Boston, Mass.  
 A. Buch's Sons Co., Elizabethtown, Pa.  
 Covert Mfg. Co., West Troy, N. Y.  
 Covert's Saddlery Works, Farmer, N. Y.  
 Cutaway Harrow Co., Higganum, Ct.  
 Lane Bros. Co., Poughkeepsie, N. Y.  
 Millers Falls Co., 28 Warren St., N. Y.  
 A. O. Norton, Boston, Mass.  
 J. E. Porter Co., Ottawa, Ill.  
 Silver Mfg. Co., Salem, O.  
 R. W. Whitehouse Co., Norfolk, Va.  
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Jacks, Hydraulic—**  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Dienelt & Eisenhardt, 1308 Howard St., Philadelphia, Pa.

Richard Dudgeon, 24 Columbia St., N. Y.  
 Fairbanks Co., 416 Broome St., New York.  
 A. L. Hender's Sons, Wilmington, Del.  
 Watson-Stillman Co., 204-210 East 43d St., New York.

**Jacks, Log—**  
 Buhl Malleable Co., Detroit, Mich.  
 Jeffrey Mfg. Co., Columbus, O.  
 Le & Bodley Co., Cincinnati, O.  
 Le & Bodley Engineering Co., Nicetown, Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Wickes Bros., Saginaw, Mich.  
**Jacks, Machinists—**  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

**Jacks, Planer—**  
 Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.

Binsse Machine Co., Newark, N. J.  
**Jacks, Pneumatic—**  
 Garry Iron & Steel Co., Cleveland, O.

**Jacks, Ratchet—**  
 A. O. Norton, Boston, Mass.

**Jacks, Screw—**  
 Cleveland City Forge & Iron Co., Cleveland, O.

Fairbanks Co., 416 Broome St., New York.  
 Gonidis Mfg. Co., Seneca Falls, N. Y.  
 Wm. G. Le Count, South Norwalk, Ct.  
 Millers Falls Co., 28 Warren St., N. Y.  
 A. O. Norton, Boston, Mass.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 S. S. Starrett Co. Athol, Mass.  
 Watson-Stillman Co., 204-210 East 43d St., New York.

**Jacks, Timber—**  
 (See Timber Dollies.)

**Jacks, Track—**  
 A. O. Norton, Boston, Mass.

**Jackers, Paste—**  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Jails, Jail Cells, &c.—**  
 W. J. Adam, Joliet, Ill.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Fred J. Meyers Mfg. Co., Hamilton, O.  
 National Iron & Wire Co., Cleveland, O.  
 Stewart Iron Works, Cincinnati, O.  
 Van Dorn Iron Works Co., Cleveland, O.

**Jamb Hooks—**  
 (See Hooks, Jamb.)

**Japanning—**  
 Avery Stamping Co., Cleveland, O.  
 S. Cheney & Son, Manlius, N. Y.  
 J. W. Clark, Albany, N. Y.  
 Forest City Foundry & Mfg. Co., Cleveland, O.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Palmer & De Mooy Foundry Co., Cleveland, O.

Plueger & Henger Mfg. Co., St. Louis, Mo.  
 I. S. Spencer's Sons, Guilford, Ct.

Taylor & Boggis Foundry Co., Cleveland, O.

**Japans—**  
 (See Varnishes, Japans, &c.)

**Jar Molds—**  
 (See Molds, Jar and Bottle.)

**Jaw Caps, Vise—**  
 (See Vise Jaw Caps.)

**Jaw Clutches—**  
 (See Clutches, Jaw.)

**Jaws, Drill Braces—**  
 Detroit Twist Drill Co., Detroit, Mich.

**Jaws, Face Plate—**  
 Hoggson & Pettis Mfg. Co., New Haven, Ct.

Skinner Chuck Co., New Britain, Ct.  
 Union Mfg. Co., New Britain, Ct.

**Jaws, Vise—**  
 Prentiss Vise Co., 44 Barclay St., N. Y.

**Jewel Caskets, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Jewelers' Rolls, Saws.**

**Tools** (See Rolls, Saws, Tools.)

**Jigs, Drill—**  
Sigourney Tool Co., Hartford, Ct.

**Jobbers, Bicycle Material and Sundries—**  
Brown-Wales Co., Boston, Mass.  
John S. Leng's Son & Co., 4 Fletcher St., New York.

**Jobbers, Hardware, Cutlery, Tools, Sporting Goods.**  
C. H. Bealy & Co., 10-12 No. Canal St., Chicago, Ill.

Burditt & Williams, Boston, Mass.  
Butler Bros., 220-240 Adams St., Chicago, Ill.

Chicago House Wrecking Co., W. 36th & Iron Sts., Chicago, Ill.  
Dame, Stoddard & Co., Boston, Mass.  
Fairbanks Co., 416 Broome St., New York.  
M. Hartley Co., 313 Broadway, New York.  
Jos. F. McCoy Co., 157 Chambers St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 351 Leonard St., N. Y.  
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Supplies Hardware Co., Philadelphia, Pa.  
Woodward, Wight & Co., New Orleans, La.

**Joggers, Paper—**  
R. A. Hart, Battle Creek, Mich.

**Joint Couplings—**  
(See Couplings, Joint.)

**Jointer Gauges—**  
(See Gauges, Jointer.)

**Jointers, Saw—**  
Pike Mfg. Co., Pike, N. H.

**Joints, Expansion—**  
Taunton Locomotive Mfg. Co., Taunton, Mass.

**Joints, Rail—**  
Chisholm & Moore Mfg. Co., Cleveland.

**Joints, Step Ladder—**  
Stanley Works, New Britain, Ct.

**Joints, Stump—**  
Blakeslee Forging Co., Plantsville, Ct.  
E. D. Clapp Mfg. Co., Auburn, N. Y.

**Joints, Universal—**  
Boston Gear Works, Boston, Mass.  
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Gould & Eberhardt, Newark, N. J.  
Poole Engineering & Machine Co., Baltimore, Md.  
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

**Joist Hangers—**  
(See Hangers and Stirrups.)

**Juice Extractors—**  
(See Extractors, Juice.)

**Junction Boxes, Electric Conduit—**  
Sprague Electric Co., 527-531 W. 34th St., New York.

**Kaolin—**  
Ostrander Fire Brick Co., Troy, N. Y.  
J. W. Paxson Co., Philadelphia, Pa.  
M. D. Valentine & Bro. Co., Woodbridge, N. J.

**Keelers—**  
Richmond Cedar Works, Richmond, Va.  
**Key Machinery and Tools—**  
Peter Gerlach Co., Cleveland, O.

**Keys, Factory—**  
W. J. Clark Co., Salem, O.  
Cleveland Wire Spring Co., Cleveland, O.  
**Keys, Nail, Bolt, Nut, &c.—**  
Edwin Bell Co., Pittsburgh, Pa.  
W. J. Clark Co., Salem, O.  
Eagle Cooperage Works, Circleville, O.

**Keys, Oak—**  
Richmond Cedar Works, Richmond, Va.

**Kerosene Burners**  
(See Burners, Kerosene.)

**Kettles, Brass—**  
Ansonia Brass & Copper Co., 99 John St., New York.

Randolph-Clowes Co., Waterbury, Ct.  
Sidney Shepard & Co., Buffalo, N. Y.  
Waterbury Brass Co., Waterbury, Ct.

**Kettles, Caldon—**  
A. Buch's Sons Co., Elizabethtown, Pa.  
S. Cheney & Son, Manlius, N. Y.

**Kettles, Five o'Clock Tea—**  
Goodwin & Kints Co., Winsted, Ct.  
New York Stamping Co., Brooklyn, N. Y.

**Kettles For Melting Lead—**  
Poole Engineering & Machine Co., Baltimore, Md.

**Kettles, Mixing—**  
E. B. Badger & Sons Co., Boston, Mass.

**Kettles, Roofing—**  
F. H. Evans, Brooklyn, N. Y.

**Kettles, Soda—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

Hess-Snyder Co., Massillon, O.  
Pennsylvania Engineering Works, New Castle, Pa.

**Kettles, Steam Jacket—**  
E. B. Badger & Sons Co., Boston, Mass.  
E. Keeler Co., Williamsport, Pa.

**Kettles, Sugar—**  
Blacklock Foundry, So. Pittsburg, Tenn.

**Kettles, Tar—**  
Thomas Carlin's Sons, Allegheny, Pa.  
F. H. Evans, Brooklyn, N. Y.  
E. Keeler Co., Williamsport, Pa.  
L. O. Koven & Bro., 50 Cliff St., N. Y.  
Ritter-Conley Mfg. Co., Pittsburg, Pa.

**Kettles, Tea and Range—**  
Blacklock Foundry, So. Pittsburg, Tenn.  
Cleveland Stamping & Tool Co., Cleveland, O.

Rome Mfg. Co., Rome, N. Y.  
Sidney Shepard & Co., Buffalo, N. Y.

**Key Chains, Checks, &c.—**  
(See Chains, Checks, &c.)

**Key Drifts—**  
Blakeslee Forging Co., Plantsville, Ct.

**Keyhole Saws—**  
(See Saws, Compass or Keyhole.)

**Keys and Coffers, Spring—**  
(See Coffers and Keys, Spring.)

**Keys and Key Blanks—**  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.



Sargent & Co., 151 Leonard St., N. Y.  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

#### Keys, Bed—

Sargent & Co., 151 Leonard St., N. Y.

#### Keys, Flat Spring—

M. S. Brooks & Sons, Chester, Ct.  
Climax Tag Co., Dayton, O.  
Cobb & Drew, Plymouth, Mass.  
Hindley Mfg. Co., Valley Falls, R. I.  
E. Jenckes Mfg. Co., Pawtucket, R. I.  
Standard Tool Co., Cleveland, O.  
Wilson & Smith, Worcester, Mass.  
Wire Goods Co., Worcester, Mass.

#### Keys, Machine—

Billings & Spencer Co., Hartford, Ct.  
Morton Mfg. Co., Muskegon Heights, Mich.

#### Keys, Riveted, Machine—

Climax Tag Co., Dayton, O.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hindley Mfg. Co., Valley Falls, R. I.  
Standard Tool Co., Cleveland, O.

#### Keys, Shapes for—

Finished Steel Co., Youngstown, O.  
Kidd Bros. & Burgher Steel Wire Co., McKees Rocks, Pa.

#### Key Way Machines—

Baker Bros., Toledo, O.  
W. N. Davis Machine Co., Rochester, N. Y.

Dubueque Machine Concern, Dubuque, Ia.  
Morse Twist Drill & Machine Co., New Bedford, Mass.  
Morton Mfg. Co., Muskegon Heights, Mich.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

#### MERCHANTS.

Hill, Clarke & Co., Boston, Mass.  
Marshall & Hueschart Machinery Co., 62-64 E. Canal St., Chicago, Ill.  
Scully Steel & Iron Co., Halsted and Weyman Sts., Chicago, Ill.  
J. B. Vanduyck Co., 8 Dey St., New York.

#### Kick Plates—

(See Plates, Push, Pull, Pick.)

#### Killers, Fly—

J. F. Bigelow Mfg. Co., Worcester, Mass.  
Osborn Mfg. Co., Cleveland, O.  
Parker Wire Goods Co., Worcester, Mass.  
A. J. Phillips Co., Fenton, Mich.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

#### Kilns, Cement—

American Furnace & Machine Co., Pittsburgh, Pa.  
Wm. B. Pollock Co., Youngstown, O.

#### Kilns, Dry—

American Blower Co., Detroit, Mich.  
Wm. Bayley & Sons Co., Milwaukee, Wis.  
Broomell, Schmidt & Steacy Co., York, Pa.

Buffalo Forge Co., Buffalo, N. Y.  
L. O. Koren & Bro., 50 Cliff St., N. Y.  
Wm. B. Pollock Co., Youngstown, O.  
B. F. Sturtevant Co., Boston, Mass.

#### Kilns, Lime—

Broomell, Schmidt & Steacy Co., York, Pa.

Wm. B. Pollock Co., Youngstown, O.  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

#### King Bolts—

(See Bolts, King.)

**Kitchen Articles, Wire (Egg Boilers, Vegetable Boilers, Chain Pot Cleaners, Bread and Cake Coolers, Dish Drainers, Kitchen Forks, Vegetable Lifters, Vegetable Mashers, Skimmers, Strainers, Toasters, Potato Fryers, Berry Washers, Culinary Baskets)—**

Cleveland Stamping & Tool Co., Cleveland, O.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Fred J. Meyers Mfg. Co., Hamilton, O.

Parker Wire Goods Co., Worcester, Mass.

Western Wire Goods Co., Buffalo, N. Y.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

#### Kitchen Forks, Knives—

(See Forks, Knives.)

#### Kitchen Saws—

(See Saws, Butcher and Kitchen.)

#### Kits, Wooden Pickle—

Richmond Cedar Works, Richmond, Va.

#### Knees, Iron, Bob—

S. Cheney & Son, Manlius, N. Y.

#### Knife Sharpeners—

(See Sharpeners, Knife.)

#### Knives and Forks, Carving—

American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Goodell Co., Antrim, N. H.

Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

#### Knives, Angle—

Simonds Mfg. Co., Fitchburg, Mass.

#### MERCHANTS.

F. R. Phillips & Sons Co., Philadelphia.

#### Knives, Apple, Trimming—

Goodell Co., Antrim, N. H.

#### Knives, Asparagus—

Goodell Co., Antrim, N. H.

#### Knives, Beef—

American Fork & Hoe Co., Cleveland, O.

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

Landers, Frary & Clark, New Britain, Ct.

#### Knives, Belt—

American Tool & Machine Co., Boston, Mass.

#### Knives, Budding and Grafting—

Holley Mfg. Co., Lakeville, Ct.

#### Knives, Butcher, Slicing.

#### Bread, Shoe, &c.—

American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Dame, Stoddard & Co., Boston, Mass.

Goodell Co., Antrim, N. H.

C. J. Kimball Co., Bennington, N. H.

Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.

New England Specialty Co., North Easton, Mass.

L. D. Parkhurst, Danielson, Ct.

Smith & Hemenway Co., 236 Broadway, New York.

Springfield Machine Screw Co., Springfield, Mass.

Tuck Mfg. Co., Brockton, Mass.

**Knives, Butter-**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Case-**  
E. C. Atkins & Co., Indianapolis, Ind.  
Geo. H. Bishop & Co., Cincinnati, O.  
Henry Diston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.

**Knives, Champagne-**  
C. T. Williamson Wire Novelty Co., Newark, N. J.

**Knives, Cheese-**  
Goodell Co., Antrim, N. H.

**Knives, Cheese, Self Gauging-**  
Enterprise Mfg. Co., Philadelphia, Pa.

**Knives, Cigar-**  
American Cutlery Co., Chicago, Ill.  
Dame, Stoddard & Co., Boston, Mass.  
Goodell Co., Antrim, N. H.

**Knives, Cloth Cutters-**  
Landers, Frary & Clark, New Britain, Ct.  
Holley Mfg. Co., Lakeville, Ct.

**Knives, Combination, and Screw Driver-**  
Billings & Spencer Co., Hartford, Ct.

**Knives, Corn-**  
American Fork & Hoe Co., Cleveland, O.  
E. C. Atkins & Co., Indianapolis, Ind.  
Geo. H. Bishop & Co., Cincinnati, O.  
Henry Diston & Sons, Philadelphia, Pa.  
Goodell Co., Antrim, N. H.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Frary & Clark, New Britain, Ct.**  
National Saw Co., Newark, N. J.

**Knives, Crumb-**  
American Cutlery Co., Chicago, Ill.

**Knives, Drawing-**  
Charles Buck, Milbury, Mass.  
Buck Bros., Milbury, Mass.  
Henry Diston & Sons, Philadelphia, Pa.  
C. E. Jennings Co., 42 Murray St., N. Y.  
C. J. Kimball Co., Bennington, N. H.  
Ohio Tool Co., Columbus, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Knives, Farrier-**  
Tower & Lyon Co., 95 Chambers St., New York.

**Knives, Electricians-**  
L. & I. J. White Co., Buffalo, N. Y.  
A. J. Wilkinson & Co., Boston, Mass.

**Knives, Mixing-**  
Smith & Hemenway Co., 236 Broadway, New York.

**Knives, Farrier-**  
Heller Bros. Co., Newark, N. J.  
Wiebusch & Hilger, 9-15 Murray St., N. Y.

**MERCHANTS**  
Jos. F. McCoy Co., 157 Chambers St., New York.

**Knives, Fish-**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Fruit-**  
Goodell Co., Antrim, N. H.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Hacking-**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Hay and Straw-**  
Iwan Bros. Streater, Ill.

**Knives, Metal Shear-**  
Ney Mfg. Co., Canton, O.

Wiebusch & Hilger, 9-15 Murray St., N. Y.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Knives, Hedge-**  
Geo. H. Bishop & Co., Cincinnati, O.  
Henry Diston & Sons, Philadelphia, Pa.

**Knives, Hunting-**  
Goodell Co., Antrim, N. H.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.  
Smith & Hemenway Co., 236 Broadway, New York.

**Knives, Kitchen-**  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Goodell Co., Antrim, N. H.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Landers, Frary & Clark, New Britain, Ct.**  
New England Specialty Co., North Easton, Mass.

**Knives, L. D. Parkhurst, Danielson, Ct.**  
Smith & Hemenway Co., 236 Broadway, New York.

**Knives, Springfield Machine Screw Co., Springfield, Mass.**

**Knives, Lawn Mower-**  
Harrow Spring Co., Kalamazoo, Mich.

**Knives, Machine (Planer), Paper Cutting, Leather Splitting, Chair Bottom, Washboard, Stave, Miter, &c.-**  
American Machinery Co., Grand Rapids, Mich.

E. C. Atkins & Co., Indianapolis, Ind.  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Oces Wrench Co., Worcester, Mass.  
Henry Diston & Sons, Philadelphia, Pa.  
Fox Machine Co., Grand Rapids, Mich.  
Heppenstall Forge & Knife Co., Pittsburgh, Pa.

John Loyd Co., 558 Water St., New York.  
National Saw Co., Newark, N. J.  
F. R. Phillips & Sons Co., Philadelphia.  
Simonds Mfg. Co., Fitchburg, Mass.  
L. & I. J. White Co., Buffalo, N. Y.

**Knives, Metal Shear-**  
(See Blades, Metal Shear.)

**Knives, Mining-**  
Arcade Mfg. Co., Freeport, Ill.  
Geo. H. Bishop & Co., Cincinnati, O.  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
John H. Graham & Co., 113 Chambers St., New York.

**Knives, New York.**  
Kilbourne Mfg. Co., Troy, N. Y.

**Knives, Landers, Frary & Clark, New Britain, Ct.**  
Fred J. Meyers Mfg. Co., Hamilton, O.

**Knives, National Saw Co., Newark, N. J.**  
New England Specialty Co., North Easton, Mass.

**Knives, Sidney Shepard & Co., Buffalo, N. Y.**

**Knives, Mixing-**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Mower and Reaper-**  
Whitman & Barnes Mfg. Co., Akron, O.

**Knives, Oyster-**  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Dame, Stoddard & Co., Boston, Mass.  
C. J. Kimball Co., Bennington, N. H.  
Landers, Frary & Clark, New Britain, Ct.  
L. D. Parkhurst, Danielson, Ct.

**Knives, Tuck Mfg. Co., Brockton, Mass.**

**Knives, Pallette—**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Paper Cutter—**  
Billings & Spencer Co., Hartford, Ct.

**Knives, Paper Hangers—**  
Webster & Perks Tool Co., Springfield, O.

**Knives, Paper, Oil Cloth, Banana, Cigar, Rubber, Cork, Leather, Cloth, &c.—**

American Cutlery Co., Chicago, Ill.  
Billings & Spencer Co., Hartford, Ct.

Dame, Stoddard & Co., Boston, Mass.  
Henry Disston & Sons, Philadelphia, Pa.

C. J. Kimball Co., Bennington, N. H.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.  
John, Loyd Co., 553-562 Water St., N. Y.

L. D. Parkhurst, Danielson, Ct.  
Smith & Hemenway Co., 236 Broadway, New York.

Tuck Mfg. Co., Brockton, Mass.

**MERCHANTS.**  
F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

**Knives, Pie—**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Press Button—**  
Wiebusch & Hilger, 9-15 Murray St., N. Y.

**Knives, Printers' Ink—**  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Knives, Pruning—**  
Holley Mfg. Co., Lakeville, Ct.

**Knives, Putty—**  
American Cutlery Co., Chicago, Ill.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Goodell Co., Antrim, N. H.  
C. J. Kimball Co., Bennington, N. H.

Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.  
L. D. Parkhurst, Danielson, Ct.

Smith & Hemenway Co., 236 Broadway, New York.

Springfield Machine Screw Co., Springfield, Mass.

**Knives, Rotary Slitting—**  
Blake & Johnson, Waterbury, Ct.

Niagara Machine & Tool Works, Buffalo, N. Y.

Simonds Mfg. Co., Fitchburg, Mass.

**MERCHANTS.**  
F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

**Knives, Saw—**  
E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.  
Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.

**Knives, Serrated—**  
National Cutlery Co., Lehigh Ave., American & Third Sts., Philadelphia.

**Knives, Shingle—**  
Ohio Tool Co., Columbus, O.

**Knives, Sportsmen's—**  
Billings & Spencer Co., Hartford, Ct.

Goodell Co., Antrim, N. H.  
Schott & Morgan Cutlery Co., Titusville, Pa.

Smith & Hemenway Co., 236 Broadway, New York.

**Knives, Strike Brick—**  
E. C. Atkins & Co., Indianapolis, Ind.

**Knives, Tobacco—**  
Landers, Frary & Clark, New Britain, Ct.

Simonds Mfg. Co., Fitchburg, Mass.  
Tuck Mfg. Co., Brockton, Mass.

L. & I. J. White Co., Buffalo, N. Y.

**Knives, Tomato—**  
Goodell Co., Antrim, N. H.

**Knives, Wood Pulp—**  
Simonds Mfg. Co., Fitchburg, Mass.

**Knobs, Base and Floor—**  
Jos. Bardsley, 147-151 Baxter St., N. Y.

W. R. Hartigan, Collinsville, Ct.  
Sargent & Co., 151 Leonard St., N. Y.

Union Hardware Co., Torrington, Ct.

**Knobs, Carriage—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

**Knob Screws—**  
(See Screws, Knob.)

**Knobs, Door—**  
Jos. Bardsley, 147-151 Baxter St., N. Y.

E. B. Estes & Sons, 45-47 John St., N. Y.  
New York Lock Co., Branford, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.  
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

Taylor & Boggis Foundry Co., Cleveland.  
United States Steel Lock Co., Clinton, Ia.

Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Knobs, Drawer and Shut-ter—**  
Jos. Bardsley, 147-151 Baxter St., N. Y.

Hardware Supply Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

**Knobs, Enameled—**  
Baker, McMillen Co., Akron, O.

J. L. Clark Hardware Co., Rockford, Ill.

**Knobs, Picture—**  
Baker, McMillen Co., Akron, O.

Sargent & Co., 151 Leonard St., N. Y.

**Knockers, Door—**  
New York Lock Co., Branford, Ct.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Knuckles, Car Coupler—**  
Chester Steel Casting Co., 407 Sansom St., Philadelphia, Pa.

**Knurl Holders—**  
(See Holders, Knurl.)

**Knurling Tools—**  
Billings & Spencer Co., Hartford, Ct.

Ideal Machine Co., Hartford, Ct.  
Pratt & Whitney Co., Hartford, Ct.

Springfield Machine Screw Co., Springfield, Mass.

**Knurls and Knurled Nuts—**  
(See Nuts, Knurled.)

**Labeling Machines, Bottle—**  
Chas. E. Leder & Co., Brooklyn, N. Y.

**Labels, Brass—**  
Crowe Metal Mfg. Co., 71 W. Jackson Bldg., Chicago, Ill.  
George M. Ness, Jr., 61 Fulton St., N. Y.  
Schwerdtle Stamp Co., Bridgeport, Ct.

**Labels, Plant and Tree—**  
Boston & Lockport Block Co., Boston.

**Laboratory Outfits—**  
Elmer & Amend, 206 Third Ave., N. Y.

**Lace Leather Cutters—**  
(See Cutters, Lace Leather.)

**Laces, Shoe—**  
N. F. Thayer Co., Boston, Mass.

**Lacing, Leather, Rawhide, Steel—**  
(See Belt Lacing, Leather, Rawhide, Steel, Hooks, Belt.)

**Lacquers—**  
Devco & Reynolds Co., 176 Randolph St., Chicago, Ill.  
Hanson & Van Winkle Co., Newark, N. J.  
Zucker & Levett & Loeb Co., 528-530 West 25th St., New York.

**Ladders, Rolling Store—**  
Bicycle Step Ladder Co., 65 Randolph St., Chicago, Ill.

**Lane Bros., Poughkeepsie, N. Y.**  
McCabe Hanger Mfg. Co., 533-543 West 22d St., New York.  
Milbradt & Co., St. Louis, Mo.  
Morley Bros., Saginaw, Mich.  
F. E. Myers & Bro., Ashland, O.  
Richards Mfg. Co., Aurora, Ill.  
J. D. Warren Mfg. Co., Chicago, Ill.  
Wilcox Mfg. Co., Aurora, Ill.

**Ladders, Sectional, Extension and Single—**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

**Ladders, Steel—**  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
F. E. Myers & Bro., Ashland, O.

**Ladders, Step—**  
Hill Dryer Co., Worcester, Mass.  
R. W. Whitehurst Co., Norfolk, Va.

**Ladle Linings—**  
Mahoning Foundry & Machine Co., Youngstown, O.

**Ladies, Babbitt—**  
Byram & Co., Inc., Detroit, Mich.

**Ladies, Foundry—**  
Byram & Co., Inc., Detroit, Mich.  
Thos. Carlin's Sons, Allegheny, Pa.  
Meehan Boiler & Construction Co., Lowellville, O.

**Northern Engineering Works, Detroit, Mich.**

**Obermayer Co., Cincinnati, O.**  
J. W. Paxson Co., Philadelphia, Pa.

**Pennsylvania Engineering Works, New Castle, Pa.**  
Wm. B. Pollock Co., Youngstown, O.

**Pooler Engineering & Machine Co., Baltimore.**  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

**J. D. Smith Foundry Supply Co., Cleveland, O.**  
B. F. Sturtevant Co., Boston, Mass.  
Whiting Foundry Equipment Co., Harvey, Ill.

**Ladles, Melting—**  
W. J. Clark Co., Salem, O.  
Hollands Mfg. Co., Erie, Pa.

**Meehan Boiler & Construction Co., Lowellville, O.**  
J. W. Paxson Co., Philadelphia, Pa.

**Peck, Stow & Wilcox Co., 2 Murray St., New York.**  
Pennsylvania Engineering Works, New Castle, Pa.

**Plunger & Henger Mfg. Co., St. Louis, Mo.**  
Wm. B. Pollock Co., Youngstown, O.

**Reading Hardware Co., Reading, Pa.**  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

**Sargent & Co., 151 Leonard St., N. Y.**  
White Mfg. Co., 33 Michigan Ave., Chicago, Ill.

**Ladle Stoppers—**  
(See Stoppers, Ladle.)

**Lag and Coach Screws—**  
(See Screws, Coach and Lag.)

**Lamp Attachments, Electric, for Gas Fixtures—**  
(See Electric Light Fittings.)

**Lampblack—**  
Samuel Cabot, Boston, Mass.

**Lamp Brackets, Chimney Heaters, &c.**  
(See Brackets, Heaters, &c.)

**Lamp Cord—**  
(See Wires, Electrical.)

**Lamp Hooks—**  
(See Hooks, Chandelier or Lamp.)

**Lamps, Acetylene, Bicycle, Carriage and Automobile—**

**Bridgeport Brass Co., Bridgeport, Ct.**  
**Lamps, Arc—**

**General Electric Co., Schenectady, N. Y.**  
**Helios-Upton Co., Peabody, Mass.**  
**Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.**

**Lamps, Bicycle—**

**Bridgeport Brass Co., Bridgeport, Ct.**  
**Plume & Atwood Mfg. Co., Waterbury, Ct.**

**Scovill Mfg. Co., Waterbury, Ct.**

**Lamps, Enclosed Arc—**  
**Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.**

**Lamps, Five O'Clock Tea—**  
**New York Stamping Co., Brooklyn, N. Y.**

**Lamps, Furnace—**  
MERCHANTS.

**J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.**

**Lamps, Gasoline Gas—**  
**Acorn Brass Mfg. Co., 205 Fulton St., Chicago, Ill.**

**Berger Mfg. Co., Canton, O.**  
**Turner Brass Works, 44 No. Franklin St., Chicago, Ill.**

**White Mfg. Co., 33 Michigan Ave., Chicago, Ill.**

**Lamps, Hand—**  
**Bridgeport Brass Co., Bridgeport, Ct.**  
**Tower & Lyon Co., 96 Chambers St., New York.**

**Lamps, Incandescent—**  
**General Electric Co., Schenectady, N. Y.**  
**Gilmore Electric Co., 80 Boston, Mass.**  
**W. E. Ostrander & Co., 210 2d St., N. Y.**  
**Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.**

**Lamps, Iron, Malleable—**

Hammer &amp; Co., Branford, Ct.

**Lamps, Laboratory—**

Dangler Stove &amp; Mfg. Div., Am. Stove Co., Cleveland, O.

**Lamps, Miners'—**

American Tube &amp; Stamping Co., Bridge-

port, Ct.

Keuffel &amp; Esser Co., 127 Fulton St.,

New York.

Sidney Shepard &amp; Co., Buffalo, N. Y.

**MERCHANTS.**

Jos. F. McCoy Co., 157 Chambers St.,

New York.

**Lamps, Miners' Safety—**

Howard &amp; Morse, 45 Fulton St., N. Y.

**MERCHANTS.**

Jos. F. McCoy Co., 157 Chambers St.,

New York.

**Lamps, Shoemakers' Kit—**

Louis Sacks Iron Foundry, Newark, N. J.

**Lamps, Shop and Foundry—**

Forest City Foundry &amp; Mfg. Co., Cleve-

land, O.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Faxon Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-

land, O.

Taylor &amp; Boggis Foundry Co., Cleveland.

**Lamps, Steel, Millyard, &c.—**

American Tube &amp; Stamping Co., Bridge-

port, Ct.

**Lamps, Street—**

Berger Mfg. Co., Canton, O.

**Lamps, Table, Banquet, Hanging, Piano, &c.—**

Bridgeport Brass Co., Bridgeport, Ct.

Charles Parker Co., Meriden, Ct.

Plume &amp; Atwood Mfg. Co., Waterbury,

Ct.

Scovill Mfg. Co., Waterbury, Ct.

**Lamps, Vestibule, Porte-****Cochere, &c.—**

Glen Mfg. Co., Ellwood City, Pa.

**Lanterns, Kerosene, &c.—**

Berger Mfg. Co., Canton, O.

Hurwood Mfg. Co., Bridgeport, Ct.

Kerosene Lantern Co., 1607 Real Estate

Trust Bldg., Philadelphia, Pa.

**Lanterns, Police—**

Hurwood Mfg. Co., Bridgeport, Ct.

Tower &amp; Lyon Co., 35 Chambers St.,

New York.

**Lapboards—**

Maine Mfg. Co., Nashua, N. H.

**Lap Lasts—**

(See Lasts, Lap.)

**Lapping Machines—**

Builders' Iron Foundry, Providence, R. I.

Diamond Machine Co., Providence, R. I.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Northampton Emery Wheel Co., Leeds,

Mass.

Standard Machinery Co., Providence, R. I.

**Lard Presses—**

(See Presses, Lard.)

**Lariat and Picket Pins—**

Corvet Mfg. Co., West Troy, N. Y.

**Lariats—**

A. Leschen &amp; Sons Rope Co., St. Louis,

Mo.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

**Lasts and Stands, Shoe—**

Adams Co., Dubuque, Ia.

Blacklock Foundry, So. Pittsburg, Tenn.

John C. Kupferle, St. Louis, Mo.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Root Bros. Co., Plymouth, O.

Louis Sacks Iron Foundry, Newark, N. J.

Stowell Mfg. &amp; Foundry Co., South Mil-

waukee, Wis.

**Lasts, Lap—**

Adams Co., Dubuque, Ia.

John C. Kupferle, St. Louis, Mo.

Louis Sacks Iron Foundry, Newark, N. J.

Star Heel Plate Co., Newark, N. J.

Stowell Mfg. Co., South Milwaukee, Wis.

**Latches and Locks, Sliding****Door Barn Door—**

(See Locks and Latches.)

**Latches, Elevator Door—**

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Cham-

bers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Stowell Mfg. &amp; Foundry Co., South Mil-

waukee, Wis.

**Latches, Gate—**

John C. Kupferle, St. Louis, Mo.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Sargent &amp; Co., 151 Leonard St., N. Y.

Susquehanna Castings Co., Wrightsville,

Pa.

Wilcox Mfg. Co., Aurora, Ill.

Wrightsville Hardware Co., Wrightsville,

Pa.

Yale &amp; Towne Mfg. Co., 9-13 Murray St.,

New York.

**Latches, Locks, &c.—**

(See Locks, Latches, &amp;c.)

**Latches, Night—**

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Cham-

bers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Tower &amp; Lyon Co., 35 Chambers St.,

New York.

**Latches, Refrigerator—**

Reading Hardware Co., Reading, Pa.

Russell &amp; Erwin Mfg. Co., 43-47 Cham-

bers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Taylor &amp; Boggis Foundry Co., Cleve-

land, O.

**Latches, Thumb—**

Chicago Spring Butt Co., Chicago, Ill.

Hardware Supply Co., Grand Rapids,

Mich.

Ney Mfg. Co., Canton, O.

Peck, Stow &amp; Wilcox Co., 27 Murray St.,

New York.

Pleuger &amp; Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Russell &amp; Erwin Mfg. Co., 43-47 Cham-

bers St., New York.

Sargent &amp; Co., 151 Leonard St., N. Y.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Latches, Water Closet—**  
Reading Hardware Co., Reading, Pa.  
Russell & Ewing Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Lath, Corrugated, Expanded Metal—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Berger Mfg. Co., Canton, O.  
Youngstown Iron & Steel Roofing Co., Youngstown, O.

**Lathe Attachments, Bench—**  
American Watch Tool Co., Waltham, Mass.

**Lathe Chucks, Dogs, &c.—**  
(See Chucks, Dogs, &c.)

**Lathes—**  
American Machinery Co., Grand Rapids, Mich.

American Tool Works Co., Cincinnati, O.  
American Watch Tool Co., Waltham, Mass.

Automatic Machine Co., Bridgeport, Ct.

B. F. Barnes Co., Rockford, Ill.

W. F. & J. Barnes Co., Rockford, Ill.

F. Blaisdell & Co., Worcester, Mass.

Blake & Johnson, Waterbury, Ct.

J. G. Blount & Co., Everett, Mass.

Bradford Machine Tool Co., Cincinnati, O.

Bullard Machine Tool Co., Bridgeport, Ct.

Carroll-Jameson Machine Tool Co., Batavia, O.

W. P. Davis Machine Co., Rochester, N. Y.

Detrick & Harvey Machine Co., Baltimore, Md.

Draper Machine Tool Co., Worcester, Mass.

Dreses Machine Tool Co., Cincinnati, O.

Erdle & Schenck, Rochester, N. Y.

Fairbanks Co., 416 Broome St., New York.

Foster-Kimball Machine Co., Chicago, Ill.

Garrin Machine Co., Spring and Varick Sts., New York.

Gisholt Machine Co., Madison, Wis.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

Greaves, Klusman & Co., Cincinnati, O.

Hannon & Finton, Springfield, Mass.

E. Harrington, Son & Co., Inc., Philadelphia, Pa.

Hendey Machine Co., Torrington, Ct.

I. H. Johnson, Jr., & Co., Inc., 1422 Calowhill St., Philadelphia, Pa.

Jones & Lamson Machine Co., Springfield, Vt.

R. E. Kidder, Worcester, Mass.

R. K. Le Blond Machine Tool Co., Cincinnati, O.

Lodge & Shipley Machine Tool Co., Cincinnati, O.

J. J. McCabe, 14 Day St., New York.

Manning, Maxwell & Moore, 85 Liberty St., New York.

E. J. Manville Machine Co., Waterbury, Ct.

Millers Falls Co., 28 Warren St., N. Y.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Patterson Tool & Supply Co., Dayton, O.  
Potter & Johnston Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

F. E. Reed Co., Worcester, Mass.

Schumacher & Boye, Cincinnati, O.

Sebastian Lathe Co., Cincinnati, O.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Slotkin & Pradgin, 210 Canal St., N. Y.

Springfield Machine Tool Co., Springfield, O.

A. Streit Machine Co., Cincinnati, O.

Washburn Shops, Worcester, Mass.

W. C. Young Mfg. Co., Worcester, Mass.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Allegheny, Pa.

J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Henry F. Hill, Boston, Mass.

Hill, Clarke & Co., Boston, Mass.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Northern Machinery Co., Minneapolis, Minn.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Stiles-Morse Co., 63 W. Washington St., Chicago, Ill.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

J. R. Vandycok Co., 8 Day St., New York.

Von Wyck Machine Tool Co., Cincinnati, O.

William Ward, Pittsburgh, Pa.

Wickes Bros., Saginaw, Mich.

**Lathes, Automatic Screw Threading—**  
Automatic Machine Co., Bridgeport, Ct.

**Lathes, Axle—**  
I. H. Johnson, Jr., & Co., Inc., 1422 Calowhill St., Philadelphia, Pa.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Wickes Bros., Saginaw, Mich.

**Lathes, Bench—**  
American Watch Tool Co., Waltham, Mass.

J. G. Blount & Co., Everett, Mass.

Fenn-Sadler Machine Co., Hartford, Ct.

Garryn Machine Co., Spring & Varick Sts., New York.

Gould & Eberhardt, Newark, N. J.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

F. E. Reed Co., Worcester, Mass.  
 Sebastian Lathe Co., Cincinnati, O.  
 Seneca Falls Mfg. Co., Seneca Falls,  
 N. Y.

Slotkin & Praglin, 210 Canal St., N. Y.

#### **Lathes, Brass—**

American Tool & Machine Co., Boston.  
 P. Blaisdell & Co., Worcester, Mass.  
 J. G. Blount & Co., Everett, Mass.  
 Dresses Machine Tool Co., Cincinnati, O.  
 Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.  
 Pratt & Whitney Co., Hartford, Ct.  
 Springfield Machine Tool Co., Spring-  
 field, O.

#### **MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.

#### **Lathes, Buffing and Polish- ing—**

(See Buffing and Polishing Machines.)

#### **Lathes, Car Wheel—**

E. Harrington, Son & Co., Inc., Philadel-  
 phia, Pa.  
 J. J. McCabe, 14 Dey St., N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

#### **Lathes, Chucking—**

American Tool Works Co., Cincinnati, O.  
 P. Blaisdell & Co., Worcester, Mass.  
 Bradford Machine Tool Co., Cincinnati, O.  
 Draper Machine Tool Co., Worcester, Mass.  
 Dresses Machine Tool Co., Cincinnati, O.  
 Garvin Machine Co., Spring and Varick  
 Sts., New York.  
 Greaves, Klusman & Co., Cincinnati, O.  
 I. H. Johnson, Jr., Inc., 337 N. 15th St.,  
 Philadelphia, Pa.  
 R. K. Le Blond Machine Tool Co., Cin-  
 cinnati, O.  
 Lodge & Shipley Machine Tool Co., Cin-  
 cinnati, O.  
 New Haven Mfg. Co., New Haven, Ct.  
 Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.  
 Potter & Johnston Machine Co., Paw-  
 tucket, R. I.  
 Pratt & Whitney Co., Hartford, Ct.  
 F. E. Reed Co., Worcester, Mass.  
 Schumacher & Boye, Cincinnati, O.  
 Springfield Machine Tool Co., Spring-  
 field, O.  
 A. Streit Machine Co., Cincinnati, O.

#### **MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 J. R. Vandryck Co., 8 Dey St., New York.  
**Lathes, Chucking Turret—**  
 P. Blaisdell & Co., Worcester, Mass.  
 Bradford Machine Tool Co., Cincinnati, O.  
 Gisholt Machine Co., Madison, Wis.  
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th  
 St., New York.  
 Jones & Lamson Machine Co., Springfield,  
 Vt.  
 Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.  
 Potter & Johnston Machine Co., Paw-  
 tucket, R. I.  
 Pratt & Whitney Co., Hartford, Ct.  
 Springfield Machine Tool Co., Spring-  
 field, O.

#### **Lathes, Double Spindle—** J. J. McCabe, 14 Dey St., N. Y.

#### **Lathes, Edging—**

Blake & Johnson, Waterbury, Ct.  
 Waterbury Farrel Foundry & Machine  
 Co., Waterbury, Ct.  
 Waterbury Machine Co., Waterbury, Ct.

#### **Lathes, Engine—**

American Tool Works Co., Cincinnati, O.  
 Automatic Machine Co., Bridgeport, Ct.  
 B. F. Barnes Co., Rockford, Ill.  
 W. F. & John Barnes Co., Rockford, Ill.  
 P. Blaisdell & Co., Worcester, Mass.  
 Bradford Machine Tool Co., Cincinnati, O.  
 Bullard Machine Tool Co., Bridgeport, Ct.  
 Carroll-Jamieson Machine Tool Co., Ba-  
 tavia, O.  
 W. P. Davis Machine Co., Rochester,  
 N. Y.  
 Diamond Machine Co., Providence, R. I.  
 Draper Machine Tool Co., Worcester,  
 Mass.

Dresses Machine Tool Co., Cincinnati, O.  
 Garvin Machine Co., Spring & Varick Sts.,  
 New York.

Gleason Works, Rochester, N. Y.  
 Gould & Eberhardt, Newark, N. J.  
 Greaves, Klusman & Co., Cincinnati, O.  
 Hendey Machine Co., Torrington, Ct.  
 I. H. Johnson, Jr., & Co., Inc., 1422 Cal-  
 lowhill St., Philadelphia, Pa.

R. K. Le Blond Machine Tool Co., Cin-  
 cinnati, O.  
 Lodge & Shipley Machine Tool Co., Cin-  
 cinnati, O.

Manning, Maxwell & Moore, 85 Liberty  
 St., New York.  
 J. J. McCabe, 14 Dey St., New York.  
 New Haven Mfg. Co., New Haven, Ct.  
 Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

Patterson Tool & Supply Co., Dayton, O.  
 Pratt & Whitney Co., Hartford, Ct.  
 F. E. Reed Co., Worcester, Mass.  
 Schumacher & Boye, Cincinnati, O.  
 Sebastian Lathe Co., Cincinnati, O.  
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
 Seneca Mfg. Co., Seneca Falls, N. Y.  
 Springfield Machine Tool Co., Spring-  
 field, O.  
 Washburn Shops, Worcester, Mass.  
 Wickes Bros., Saginaw, Mich.  
 W. C. Young Mfg. Co., Worcester, Mass.

#### **MERCHANTS.**

Geo. E. Affleck, 109 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 Carlin Machinery & Supply Co., Alle-  
 gheny, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Henry F. Hill, Boston, Mass.  
 Hill, Clarke & Co., Boston, Mass.  
 McDowell & Co., Pittsburgh, Pa.  
 McDowell, Stocker & Co., 59 S. Canal St.,  
 Chicago, Ill.  
 Prentiss Tool & Supply Co., 115 Liberty  
 St., New York.  
 L. F. Seyfert's Sons, 437-441 N. 3d St.,  
 Philadelphia, Pa.  
 J. R. Vandryck Co., 8 Dey St., New York.  
 Von Wyck Machine Tool Co., Cincin-  
 nati, O.  
 William Ward, Pittsburgh, Pa.

#### **Lathes, Foot—**

B. F. Barnes Co., Rockford, Ill.  
 W. F. & John Barnes Co., Rockford, Ill.

Carroll-Jameson Machine Tool Co., Batavia, O.  
 W. P. Davis Machine Co., Rochester, N. Y.  
 Garvin Machine Co., Spring & Varick Sts., New York  
 Millers Falls Co., 28 Warren St., N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York  
 F. E. Reed Co., Worcester, Mass.  
 Sebastian Lathes Co., Cincinnati, O.  
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
 Slotkin & Praglin, 210 Canal St., N. Y.  
 Union Mfg. & Specialty Co., Buffalo, N. Y.

W. C. Young Mfg. Co., Worcester, Mass.  
**MERCHANTS.**  
 Baird Machinery Co., Pittsburgh, Pa.  
 Carlin Machinery & Supply Co., Allegheny, Pa.  
 L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

**Lathes, Gap—**  
 American Tool Works Co., Cincinnati, O.  
 Gisholt Machine Co., Madison, Wis.  
 I. H. Johnson, Jr., & Co., Inc., 1422 Cal-lowhill St., Philadelphia, Pa.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York  
 Pratt & Whitney Co., Hartford, Ct.  
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**Lathes, Golf Head Forming—**  
 Kimball Bros. & Sprague, Brockton, Mass.  
**Lathes, Gun Barrel Turning and Boring—**  
 F. E. Reed Co., Worcester, Mass.

**Lathes, Gun Turning and Boring—**  
 Bement, Miles & Co., 21st & Callowhill Sts., Philadelphia, Pa.  
 I. H. Johnson, Jr., & Co., Inc., 1422 Cal-lowhill St., Philadelphia, Pa.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York  
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
 F. E. Reed Co., Worcester, Mass.  
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**Lathes, Hand—**  
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.  
**Lathes, Hand Universal—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 F. E. Reed Co., Worcester, Mass.

**Lathes, Ingot—**  
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York

**Lathes, Lat—**  
 H. G. Barz, Worcester, Mass.  
 Kimball Bros. & Sprague, Brockton, Mass.  
**Lathes, Manual Training—**  
 F. E. Reed Co., Worcester, Mass.

**Lathes, Pit—**  
 Gleason Works, Rochester, N. Y.  
 Wickes Bros., Saginaw, Mich.  
**Lathes, Projectile Boring and Turning—**  
 Bradford Machine Tool Co., Cincinnati, O.  
 I. H. Johnson, Jr., & Co., Inc., 1422 Cal-lowhill St., Philadelphia, Pa.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Lathes, Pulley Turning—**  
 P. Blaisdell & Co., Worcester, Mass.  
 Lodge & Shipley Machine Tool Co., Cin-cinnati, O.

New Haven Mfg. Co., New Haven, Ct.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
 A. Streit Machine Co., Cincinnati, O.

**Lathes, Rapid Production—**  
 Bullard Machine Tool Co., Bridgeport, Ct.  
 F. E. Reed Co., Worcester, Mass.

**Lathes, Roll—**  
 P. Blaisdell & Co., Worcester, Mass.  
 Diamond Drill & Machine Co., Birdsboro, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.  
 George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.  
 Meets Machine Co., Pittsburgh, Pa.  
 Morgan Construction Co., Worcester, Mass.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
 United Engineering & Foundry Co., Pitts-burgh, Pa.

**MERCHANTS.**  
 Fairbanks Co., 416 Broome St., New York.  
 F. R. Phillips & Sons Co., Philadelphia, Pa.  
 Wickes Bros., Saginaw, Mich.

**Lathes, Roll Engraving—**  
 Gould & Eberhardt, Newark, N. J.

**Lathes, Roll Polishing—**  
 Gould & Eberhardt, Newark, N. J.

**Lathes, Shaft Turning—**  
 American Watch Tool Co., Waltham, Mass.

P. Blaisdell & Co., Worcester, Mass.  
 Bradford Machine Tool Co., Cincinnati, O.  
 Gleason Works, Rochester, N. Y.  
 E. Harrington, Son & Co., Philadelphia.  
 I. H. Johnson, Jr., & Co., Inc., 337 N. 15th St., Philadelphia, Pa.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York

Schumacher & Boye, Cincinnati, O.  
 Springfield Machine Tool Co., Spring-field, O.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**MERCHANTS.**  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.

**Lathes, Speed—**  
 American Machinery Co., Grand Rapids, Mich.

Automatic Machine Co., Greenfield, Mass.  
 Baugh Mach. Tool Co., Springfield, Mass.  
 P. Blaisdell & Co., Worcester, Mass.  
 J. G. Blount & Co., Everett, Mass.  
 Carroll-Jameson Machine Tool Co., Ba-tavia, O.

Diamond Machine Co., Providence, R. I.  
 Garvin Machine Co., Spring & Varick Sts., New York

Grant Mfg. & Machine Co., Bridgeport, Ct.

Greaves, Klusman & Co., Cincinnati, O.  
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.



R. E. Kidder, Worcester, Mass.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Pratt & Whitney Co., Hartford, Ct.  
P. E. Reed, Worcester, Mass.  
Sebastian Lathe Co., Cincinnati, O.  
Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
Slotkin & Praglin, 210 Canal St., N. Y.  
Washburn Shops, Worcester, Mass.  
W. C. Young Mfg. Co., Worcester, Mass.

#### MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
McDowell, Stocker & Co., 59 S. Canal St.,  
Chicago, Ill.  
J. R. Vandycck Co., 8 Dey St., New York.

**Lathes, Spindle Boring—**  
I. H. Johnson, Jr., Co., Inc., 337 N. 15th  
St., Philadelphia, Pa.  
Springfield Machine Tool Co., Spring-  
field, O.

**Lathes, Spinning—**  
P. Blaisdell & Co., Worcester, Mass.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
J. G. Blount & Co., Everett, Mass.  
Falkenau-Sinclair Machine Co., 109 N.  
22d St., Philadelphia, Pa.  
Greaves, Klusman & Co., Cincinnati, O.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
I. H. Johnson, Jr., Co., Inc., 337 N. 15th  
St., Philadelphia, Pa.  
E. J. Manville Mach. Co., Waterbury, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Waterbury Farrel Foundry & Machine  
Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.

**Lathes, Strapping—**  
Springfield Mfg. Co., Bridgeport, Ct.

**Lathes, Stud and Bolt—**  
P. E. Reed Co., Worcester, Mass.

**Lathes, Tool Room—**  
American Tool Works Co., Cincinnati, O.  
P. Blaisdell & Co., Worcester, Mass.  
Bradford Machine Tool Co., Cincinnati, O.  
Fairbanks Co., 416 Broome St., New York.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Pratt & Whitney Co., Hartford, Ct.  
Seneca Falls Mfg. Co., Seneca Falls,  
N. Y.  
Springfield Machine Tool Co., Spring-  
field, O.

**Lathes, Trimming—**  
Blake & Johnson, Waterbury, Ct.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
E. J. Manville Machine Co., Waterbury,  
Ct.

Waterbury Farrel Foundry & Machine  
Co., Waterbury, Ct.

**Lathes, Turret—**  
American Tool Works Co., Cincinnati, O.  
P. Blaisdell & Co., Worcester, Mass.  
Bradford Machine Tool Co., Cincinnati, O.  
Bullard Mach. Tool Co., Bridgeport, Ct.  
Dresse Machine Tool Co., Cincinnati, O.  
Foster-Kimball Machine Co., Chicago, Ill.  
Garvin Machine Co., Spring & Varick Sts.,  
New York.

Gisholt Machine Co., Madison, Wis.  
Greaves, Klusman & Co., Cincinnati, O.  
I. H. Johnson, Jr., Co., Inc., 422 Cal-  
lowhill St., Philadelphia, Pa.

Jones & Lamson Machine Co., Springfield,  
Vt.

R. K. Le Bland Machine Tool Co., Cin-  
cinnati, O.  
Lodge & Shipley Machine Tool Co., Cin-  
cinnati, O.  
Manning, Maxwell & Moore, 85 Liberty  
St., New York.

New Haven Mfg. Co., New Haven, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Potter & Johnston Machine Co., Paw-  
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.  
P. E. Reed Co., Worcester, Mass.  
Schumacher & Boye, Cincinnati, O.  
Sebastian Lathe Co., Cincinnati, O.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Springfield Machine Tool Co., Spring-  
field, O.

#### MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.  
Baird Machinery Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Prentiss Tool & Supply Co., 115 Liberty  
St., New York.

J. R. Vandycck Co., 8 Dey St., New York.  
Wickes Bros., Saginaw, Mich.

**Lathes, Turret on Carriage—**  
P. Blaisdell & Co., Worcester, Mass.  
Bradford Machine Tool Co., Cincinnati, O.  
Bullard Machine Tool Co., Bridgeport, Ct.  
Gisholt Machine Co., Madison, Wis.  
I. H. Johnson, Jr., Co., Inc., 337 N. 15th  
St., Philadelphia, Pa.

**Lathes, Worm Threading—**  
Automatic Machine Co., Bridgeport, Ct.

**Lathes Work, Special**  
**Turned—**  
Cincinnati Screw & Tap Co., Cincinnati.

**Lathing, Wire—**  
Buffalo Wire Works Co., Buffalo, N. Y.  
Clinton Wire Cloth Co., Clinton, Mass.  
Gilbert & Bennett Mfg. Co., 277 Broad-  
way, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.  
New Jersey Wire Cloth Co., Trenton, N. J.  
W. S. Tyler Co., Cleveland, O.  
Wright Wire Co., Worcester, Mass.

**Lath Machines, Sheet Metal—**  
George A. Ohl & Co., Newark, N. J.

**Lath, Sheet Metal—**  
American Sheet & Tin Plate Co., Pitts-  
burgh, Pa.  
Youngstown Iron & Steel Roofing Co.,  
Youngstown, O.

**Lath, Yarn—**  
A. Leschen & Sons Rope Co., St. Louis.

**Launches—**  
Dodge Mfg. Co., Mishawaka, Ind.  
John M. Rogers Boat, Gauge & Drill  
Works, Gloucester City, N. J.

**Laundry, Irons, Stoves—**  
(See Irons, Stoves.)

**Laundry Machinery—**  
B. F. Sturtevant Co., Boston, Mass.

**Lavatory Fittings and**  
**Legs—**  
(See Plumbing Supplies.)

**Lawn Fountains, Mowers,**  
**Bakes, &c.—**  
(See Fountains, Mowers, Bakes, &c.)

**Lead—**  
American Metal Co., 53 Broadway, N. Y.  
John Davol & Sons, 100 John St., N. Y.  
Hendricks Bros., 49 Cliff St., New York.  
Theo. Hertz Metal Co., St. Louis, Mo.  
Merchant & Co., Inc., Philadelphia, Pa.  
Arthur T. Rutter & Co., 256 Broadway,  
New York.  
J. J. Ryan & Co., 62-74 W. Monroe St.,  
Chicago, Ill.

**Lead Blocks—**  
(See Blocks, Lead.)

**Lead Car Seals—**  
Theo. Hertz Metal Co., St. Louis, Mo.

**Lead Covers, Wire—**  
(See Wires, Electrical.)

**Lead Enamel Wire—**  
(See Wire, Electrical.)

**Leaders, Cattle—**

Covert Mfg. Co., West Troy, N. Y.  
Oneida Community, Kenwood, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Sargent & Co., 151 Leonard St., N. Y.  
**Lead Furnaces—**  
(See Furnaces, Portable, &c.)

**Lead Pencils, Pipe—**  
(See Pencils, Pipe.)

**Leads, Saddle—**

Covert's Saddlery Works, Farmer, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.

**Lead Sheet, Perforated—**  
Harrington & King Perforating Co., 224  
N. Union St., Chicago, Ill.  
Chas. Mundt & Sons, 441-447 Pearl St.,  
New York.

**Leads, Lumber Marking—**  
Jos. Dixon Crucible Co., Jersey City, N. J.

**Leads, Sounding—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Leather Belting Strips—**  
(See Belting Strips.)

**Leather Belt Lacing—**  
(See Belt Lacing, Leather.)

**Leather, Hydraulic—**  
Alexander Bros., 410-412 N. 3d St., Phila-  
delphia, Pa.

**Leather Polishing Meal for  
Dry Tumbling Barrels—**  
Peckham Mfg. Co., Newark, N. J.

**Leather Splitting Knives—**  
(See Knives, Machine.)

**Leathers, Pump—**  
Barnes Mfg. Co., Mansfield, O.  
Berger Bros. Co., 231-237 Arch St., Phila-  
delphia, Pa.  
Humphreys Mfg. Co., Mansfield, O.  
Raymond Mfg. Co., Corry, Pa.

**Leather Washers—**  
(See Washers, Leather.)

**Ledgers, Loose Leaf, and  
Supplies—**  
Tengwall File & Ledger Co., Ravenswood  
Sta., Chicago, Ill.

**Legs and Lavatory Fit-  
tings—**  
(See Plumbing Supplies.)

**Leak Counter—**  
S. Cheney & Son, Manlius, N. Y.

**Lemon Squeezers—**  
(See Squeezers, Lemon.)

**Letter Binders, File Open-  
ers, Presses—**  
(See Binders, Openers, Presses.)

**Letter Plates, Drop—**  
(See Plates, Drop Letter.)

**Letters and Figures, Cor-  
nice and Signs—**  
Berger Mfg. Co., Canton, O.

**Letters and Figures, House,  
&c.—**

American Railway Supply Co., 24 Park  
Place, New York.  
Arcade Mfg. Co., Freeport, Ill.  
Chas. H. Besly & Co., 10-12 N. Canal St.,  
Chicago, Ill.

Chicago Spring Butt Co., Chicago, Ill.  
Cleveland Galvanizing Works, Cleveland.  
Goodwin & Kintz Co., Winsted, Ct.  
Metal Stamping Co., Niagara Falls, N. Y.  
New York Lock Co., Branford, Ct.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
A. V. Taylor & Co., Cincinnati, O.  
Taylor & Boggis Foundry Co., Cleve-  
land, O.

W. & J. Tiebout, 118 Chambers St., N. Y.  
Weibusch & Hilker, 9-15 Murray St., N. Y.  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Letters and Figures, Steel—**  
Globe Machine & Stamping Co., Cleve-  
land, O.

E. Konigsow Stamping & Tool Works,  
Cleveland, O.

Metal Stamping Co., Niagara Falls, N. Y.  
Geo. M. Ness, Jr., 81 Fulton St., N. Y.  
Schwerdtle Stamp Co., Bridgeport, Ct.  
R. Woodman Mfg. & Supply Co., Boston,  
Mass.

**Letters and Figures, White  
Enamel—**

A. V. Taylor & Co., Cincinnati, O.

**Letter Scales—**  
(See Scales, Letter, Silver Plated.)

**Letters, Cast Iron Sign—**  
Brown & Sharpe Mfg. Co., Providence,  
R. I.

**Letters, Gold Glass—**

A. V. Taylor & Co., Cincinnati, O.

**Letters, Pattern—**

A. G. Butler, 101 Beekman St., N. Y.  
S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.  
J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-  
land, O.

St. Louis Electrotpe Foundry, St. Louis.

**Levelers and Graders,  
Road—**

Kilbourne & Jacobs Mfg. Co., Colum-  
bus, O.

**MERCHANTS.**  
Contractors' Equipment Co., Betz Bldg.,  
Philadelphia, Pa.

**Leveling and Squaring In-  
struments—**

(See Instruments, Leveling and Squaring.)

**Leveling Rods, Poles—**  
(See Rods, Poles.)

**Levels—**  
(See Plumbs and Levels.)

**Levels and Plumbs—**  
(See Plumbs and Levels.)

**Levels, Bit and Square—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Stanley Rule & Level Co., New Britain, Ct.

**Levels, Cross—**

Sawyer Tool Mfg. Co., Fitchburg, Mass.

**Levels, Engineers'—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Levels, Hand Bench—**

C. E. Jennings Co., 42 Murray St., N. Y.

**Level Sights—**

Stanley Rule & Level Co., New Britain, Ct.

**Levels, Iron—**

(See also Plumbs and Levels.)

Athol Machine Co., Athol, Mass.  
Henry Diston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Millers Falls Co., 28 Warren St., N. Y.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Stanley Rule & Level Co., New Britain, Ct.  
L. S. Starrett Co., Athol, Mass.

**Levels, Machinists'—**

Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Diston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Levels, Plane Tables, Sextants, &c.—**

(See Surveying Instruments.)

**Levels, Plumbers'—**

Athol Machine Co., Athol, Mass.  
L. S. Starrett Co., Athol, Mass.

**Levels, Pocket—**

Athol Machine Co., Athol, Mass.  
Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Diston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Springfield Machine Screw Co., Springfield, Mass.  
Stanley Rule & Level Co., New Britain, Ct.  
L. S. Starrett Co., Athol, Mass.

Tower & Lyon Co., 95 Chambers St., New York.

**Levels, Railroad Track—**

Chapin-Stephens Co., Pine Meadow, Ct.  
Sheffield Car Co., Three Rivers, Mich.

**Levels, Shafting—**

Henry Diston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Levels, Y—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Lever Bells—**

(See Bells.)

**Levers, Automobile Steering—**

Federal Mfg. Co., Cleveland, O.

**Levers, Door Bell—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Levers, Machine—**

Sargent & Co., 151 Leonard St., N. Y.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

**Lewis, Stone—**

Trow & Holden, Barre, Vt.

**Lifters, Drop Press and Hammer—**

Miner & Peck Mfg. Co., New Haven, Ct.  
George A. Ohl & Co., Newark, N. J.  
Standard Machinery Co., Providence, R. I.

**Lifters, Sash—**

Arcade Mfg. Co., Freeport, Ill.  
Griffin Mfg. Co., Erie, Pa.  
H. B. Ives Co., New Haven, Ct.  
National Mfg. Co., Sterling, Ill.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Shelby Spring Hinge Co., Shelby, O.  
Stanley Works, New Britain, Ct.  
Stover Mfg. Co., Freeport, Ill.

Taylor & Boggis Foundry Co., Cleveland.  
United States Steel Lock Co., Clinton, Ia.  
Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Lifters, Shutter—**

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Lifters, Stove Lid—**

Adams Co., Dubuque, Ia.  
Arcade Mfg. Co., Freeport, Ill.  
Fanner Mfg. Co., Cleveland, O.  
New York Stamping Co., Brooklyn, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

A. C. Williams, Ravenna, O.  
Wire Goods Co., Worcester, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Lifters, Transom—**

E. A. Ormsby, Melrose, Mass.  
Reading Hardware Co., Reading, Pa.  
Reading Screw Co., Norristown, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Lifters, Trunk—**

J. H. Sessions & Son, Bristol, Ct.

**Lifters, Window Screen—**

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
C. T. Williamson Wire Novelty Co., Newark, N. J.

Wire Goods Co., Worcester, Mass.

**Lifting Apparatus, Sash—**

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

**Lifting Handles, Scales—**

(See Handles, Scales.)

**Lift Pumps—**

(See Pumps, Lift.)

**Lifts, Acid—**

Bethlehem Foundry & Machine Co., Bethlehem, Pa.

**Lifts, Invalid—**

Storm Mfg. Co., Newark, N. J.

**Lifts, Shoe—**

N. F. Thayer Co., Boston, Mass.

**Lighters, Gas, Electric—**  
Holtzer-Cabot Electric Co., Boston, Mass.  
V. R. Ostrander & Co., 27 Dey St., N. Y.

**Lighters, Side and Deck—**  
Wm. Bayley & Sons Co., Milwaukee, Wis.  
Edson Mfg. Co., Boston, Mass.

**Lighting System, Gasoline—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.  
White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**Lightning Arresters—**  
(See Arresters, Lightning.)

**Lights, Side and Deck—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Lights, Sidewalk—**  
(See Iron Work, Builders'.)

**Lignumvitae, in Log—**  
Boston & Lockport Block Co., Boston.

**Limestone—**  
Columbus Iron & Steel Co., Columbus, O.

**Limestone, Crushed—**  
Reed F. Blair & Co., Pittsburgh, Pa.

**Line Cleats, Grips—**  
(See Cleats, Grips.)

**Liners, Section—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.

**L. B. Starrett Co., Athol, Mass.**

**Lines, Chalk, Masons', &c.—**  
Samson Cordage Works, Boston, Mass.

**Silver Lake Co., Boston, Mass.**

**Emerson P. Turner Mfg. Co., Norwich, Ct.**

**Lines, Clothes, Cotton &c.—**  
Geo. B. Carpenter & Co., 15 Fifth Ave., Chicago, Ill.

**Estes & Sons, Fall River, Mass.**

**Samson Cordage Works, Boston, Mass.**

**Silver Lake Co., Boston, Mass.**

**Emerson P. Turner Mfg. Co., Norwich, Ct.**

**Lines, Clothes, Wire—**  
Ludlow-Saylor Wire Co., St. Louis, Mo.

**Fred J. Meyers Mfg. Co., Hamilton, O.**

**Parker Mfg. Co., Worcester, Mass.**

**Emerson P. Turner Mfg. Co., Norwich, Ct.**

**Western Wire Goods Co., Buffalo, N. Y.**

**Williamsport Wire Rope Co., Williamsport, Pa.**

**Wire Goods Co., Worcester, Mass.**

**Wright Wire Co., Worcester, Mass.**

**Lines, Fishing—**  
Clark, Horrocks Co., Utica, N. Y.

**Dame, Stoddard & Co., Boston, Mass.**

**Lines, Garden—**  
Samson Cordage Works, Boston, Mass.

**Silver Lake Co., Boston, Mass.**

**Emerson P. Turner Mfg. Co., Norwich, Ct.**

**Linings, Dress, Crinoline—**  
I. E. Palmer, Middletown, Ct.

**Linings, Stove—**  
Wm. Connor Paint Mfg. Co., Troy, N. Y.

**Ostrander Fire Brick Co., Troy, N. Y.**

**Iresbrey Fire Brick Works, Taunton, Mass.**

**Link Belting, Chain—**  
(See Belting, Chain Link.)

**Links and Pins, Car Coup-**

**ling—**  
Cleveland City Forge & Iron Co., Cleveland, O.

**Jones & Laughlin Steel Co., Pittsburgh.**

**Keystone Drop Forge Works, Chester, Pa.**

**Standard Chain Co., Pittsburgh, Pa.**

**Links, Fusible—**  
Richards Mfg. Co., Aurora, Ill.

**Links, Red—**  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

**E. H. Titchener & Co., Binghamton, N. Y.**

**Links, Chain—**  
(See Chain Links.)

**Links, Repair and Lap—**  
Bridgeport Chain Co., Bridgeport, Ct.

**Keystone Drop Forge Works, Chester, Pa.**

**Kilborn & Bishop Co., New Haven, Ct.**

**Marine Hardware & Equipment Co., So. Portland, Me.**

**Oneida Community, Kenwood, N. Y.**

**Sargent & Co., 151 Leonard St., N. Y.**

**Standard Chain Co., Pittsburgh, Pa.**

**W. & J. Tiebout, 118 Chambers St., N. Y.**

**Linoleum Machinery—**  
Farrel Foundry & Mach. Co., Ansonia, Ct.

**Lino-type Metal—**  
Theo. Hertz Metal Co., St. Louis, Mo.

**Merchant & Co., Inc., Philadelphia, Pa.**

**Live Rolls—**  
Lane & Bodley Co., Cincinnati, O.

**Loaders, Hay—**  
(See Haying Tools.)

**Loaders, Horse, Car—**  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Loaders, Log—**  
Garry Iron & Steel Co., Cleveland, O.

**Soule Steam Feed Works, Meridian, Miss.**

**Lock and Coasters, Com-**

**bined, Bicycle—**  
(See Brakes, Coaster, Bicycle.)

**Lock Corner Cutters—**  
(See Cutters, Lock Corner.)

**Lockers, Office and Shop—**  
W. J. Clark Co., Salem, O.

**Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.**

**Glen Mfg. Co., Ellwood City, Pa.**

**Fred J. Meyers Mfg. Co., Hamilton, O.**

**Wright Wire Co., Worcester, Mass.**

**Lock Nuts—**  
(See Nuts, Lock.)

**Locks and Handles, Store**

**Door—**  
(See Handles and Locks, Store Door.)

**Locks and Latches, Barn**

**Door—**  
Sargent & Co., 151 Leonard St., N. Y.

**Locks and Latches, Ship—**  
New York Lock Co., Branford, Ct.

**Russell & Erwin Mfg. Co., 43-47 Cham-**

**bers St., New York.**

**Sargent & Co., 151 Leonard St., N. Y.**

**W. & J. Tiebout, 118 Chambers St., N. Y.**

**Locks and Latches, Sliding**

**Door—**  
Cronk & Carrier Mfg. Co., Elmira, N. Y.

**Lane Bros. Co., Poughkeepsie, N. Y.**

**Louden Machinery Co., Fairfield, Ia.**

**New York Lock Co., Branford, Ct.**

**Perfect Sliding Door Co., Bridgeport, Ct.**

**Reading Hardware Co., Reading, Pa.**

**Russell & Erwin Mfg. Co., 43-47 Cham-**

**bers St., New York.**

**Sargent & Co., 151 Leonard St., N. Y.**

**Stowell Mfg. & Foundry Co., South Mil-**

**waukee, Wis.**

**Levels, Bit and Square—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Stanley Rule & Level Co., New Britain, Ct.

**Levels, Cross—**  
Sawyer Tool Mfg. Co., Fitchburg, Mass.

**Levels, Engineers'—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.

**Levels, Hand Bench—**  
C. E. Jennings Co., 42 Murray St., N. Y.

**Level Sights—**  
Stanley Rule & Level Co., New Britain, Ct.

**Levels, Iron—**  
(See also Plumbs and Levels.)  
Athol Machine Co., Athol, Mass.

Henry Disston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Millers Falls Co., 28 Warren St., N. Y.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

**Levels, Machinists'—**  
Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Disston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Levels, Plane Tables, Sextants, &c.—**  
(See Surveying Instruments.)

**Levels, Plumbers'—**  
Athol Machine Co., Athol, Mass.  
L. S. Starrett Co., Athol, Mass.

**Levels, Pocket—**  
Athol Machine Co., Athol, Mass.  
Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Disston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Springfield Machine Screw Co., Springfield, Mass.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.  
Tower & Lyon Co., 95 Chambers St., New York.

**Levels, Railroad Track—**  
Chapin-Stephens Co., Pine Meadow, Ct.  
Sheffield Car Co., Three Rivers, Mich.

**Levels, Shafting—**  
Henry Disston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Levels, Y—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Lever Bells—**  
(See Bells.)

**Lever, Automobile Steering—**  
Federal Mfg. Co., Cleveland, O.

**Lever, Door Bell—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Lever, Machine—**  
Sargent & Co., 151 Leonard St., N. Y.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

**Lewis Stone—**  
Trow & Holden, Barre, Vt.

**Lifters, Drop Press and Hammer—**

Miner & Peck Mfg. Co., New Haven, Ct.  
George A. Ohl & Co., Newark, N. J.  
Standard Machinery Co., Providence, R. I.

**Lifters, Sash—**

Arcade Mfg. Co., Freeport, Ill.  
Griffin Mfg. Co., Erie, Pa.  
H. B. Ives Co., New Haven, Ct.  
National Mfg. Co., Sterling, Ill.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleunger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Shelby Spring Hinge Co., Shelby, O.  
Stanley Works, New Britain, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Taylor & Boggis Foundry Co., Cleveland.  
United States Steel Lock Co., Clinton, Ia.  
Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Lifters, Shutter—**  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Lifters, Stove Lid—**

Adams Co., Dubuque, Ia.  
Arcade Mfg. Co., Freeport, Ill.  
Fanner Mfg. Co., Cleveland, O.  
New York Stamping Co., Brooklyn, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
A. C. Williams, Ravenna, O.

Wire Goods Co., Worcester, Mass.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Lifters, Transom—**

R. A. Ormsby, Melrose, Mass.  
Reading Hardware Co., Reading, Pa.  
Reading Screw Co., Norristown, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Lifters, Trunk—**

J. H. Sessions & Sons, Bristol, Ct.

**Lifters, Window Screen—**

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
C. T. Williamson Wire Novelty Co., Newark, N. J.

Wire Goods Co., Worcester, Mass.

**Lifting Apparatus, Sash—**

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

**Lifting Handles, Scales—**

(See Handles, Scales.)

**Lift Pumps—**

(See Pumps, Lift.)

**Lifts, Acid—**

Bethlehem Foundry & Machine Co., Bethlehem, Pa.

**Lifts, Invalid—**

Storm Mfg. Co., Newark, N. J.

**Lifts, Race—**

N. F. Thayer Co., Boston, Mass.

**Lighters, Gas, Electric—**  
Holtzer-Cabot Electric Co., Boston, Mass.  
V. R. Ostrander & Co., 22 Dey St., N. Y.

**Lighters, Side and Deck—**  
Wm. Bayley & Sons Co., Milwaukee, Wis.  
Edson Mfg. Co., Boston, Mass.

**Lighting System, Gasoline—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**Lightning Arresters—**

(See Arresters, Lightning.)

**Lights, Side and Deck—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Lights, Sidewalk—**

(See Iron Work, Builders'.)

**Lignumvitae, in Log—**

Boston & Lockport Block Co., Boston.

**Limestone—**

Columbus Iron & Steel Co., Columbus, O.

**Limestone, Crushed—**

Reed F. Blair & Co., Pittsburgh, Pa.

**Line Cleats, Grips—**

(See Cleats, Grips.)

**Liners, Section—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

**Lines, Chalk, Masons', &c.—**

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Lines, Clothes, Cotton &c.—**

Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

Estes & Sons, Fall River, Mass.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Lines, Clothes, Wire—**

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Parker Mfg. Co., Worcester, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

Western Wire Goods Co., Buffalo, N. Y.

Williamsport Wire Rope Co., Williamsport, Pa.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Lines, Fishing—**

Clark, Horrocks Co., Utica, N. Y.

Dame, Stoddard & Co., Boston, Mass.

**Lines, Garden—**

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Linings, Dress, Crinoline—**

I. E. Palmer, Middletown, Ct.

**Linings, Stove—**

Wm. Connor Paint Mfg. Co., Troy, N. Y.

Ostrander Fire Brick Co., Troy, N. Y.

Presbrey Fire Brick Works, Taunton, Mass.

**Link Belting, Chair—**

(See Belting, Chain Link.)

**Links and Pins, Car Coup-**

ling—

Cleveland City Forge & Iron Co., Cleveland, O.

Jones & Laughlin Steel Co., Pittsburgh.

Keystone Drop Forge Works, Chester, Pa.

Standard Chain Co., Pittsburgh, Pa.

**Links, Fusible—**

Richards Mfg. Co., Aurora, Ill.

**Links, Bed—**

Wm. D. Gibson Co., 23-27 No. Clinton

St., Chicago, Ill.

E. H. Titchener & Co., Binghamton,

N. Y.

**Links, Chain—**

(See Chain Links.)

**Links, Repair and Lap—**

Bridgeport Chain Co., Bridgeport, Ct.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Marine Hardware & Equipment Co., So.

Portland, Me.

Oneida Community, Kenwood, N. Y.

Sargent & Co., 151 Leonard St., N. Y.

Standard Chain Co., Pittsburgh, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Lingoleum Machinery—**

Farrel Foundry & Mach. Co., Ansonia, Ct.

**Linotype Metal—**

Theo. Hertz Metal Co., St. Louis, Mo.

Merchant & Co., Inc., Philadelphia, Pa.

**Live Rolls—**

Lane & Bodley Co., Cincinnati, O.

**Loaders, Hay—**

(See Haying Tools.)

**Loaders, Horse, Car—**

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Loaders, Log—**

Garry Iron & Steel Co., Cleveland, O.

Soule Steam Feed Works, Meridian, Miss.

**Lock and Coasters, Com-**

bined, Bicycle.

(See Brakes, Coaster, Bicycle.)

**Lock Corner Cutters—**

(See Cutters, Lock Corner.)

**Lockers, Office and Shop—**

W. J. Clark Co., Salem, O.

Edward Darby & Sons, 233-235 Arch St.,

Philadelphia, Pa.

Glen Mfg. Co., Ellwood City, Pa.

Fred J. Meyers Mfg. Co., Hamilton, O.

Wright Wire Co., Worcester, Mass.

**Lock Nuts—**

(See Nuts, Lock.)

**Locks and Handles, Store**

**Door—**

(See Handles and Locks, Store Door.)

**Locks and Latches, Barn**

**Door—**

Sargent & Co., 151 Leonard St., N. Y.

**Locks and Latches, Ship—**

New York Lock Co., Branford, Ct.

Russell & Erwin Mfg. Co., 43-47 Cham-

bers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Locks and Latches, Sliding**

**Door—**

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Lane Bros. Co., Poughkeepsie, N. Y.

Louden Machinery Co., Fairfield, Ia.

New York Lock Co., Branford, Ct.

Perfect Sliding Door Co., Bridgeport, Ct.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Cham-

bers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stowell Mfg. & Foundry Co., South Mil-

waukee, Wis.

**Locks and Trimmings, Car-**  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.

**Locks, Automobile and Car-**  
riage—  
Walter W. Woodruff & Sons Co., Mount  
Carmel, Ct.

**Locks, Bank—**  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Bicycle—**  
Ames Sword Co., Chicopee, Mass.  
John H. Graham & Co., 113 Chambers  
St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Cabinet—**  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Car Window—**  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.

**Locks, Elevator Door—**  
Chisholm & Moore Mfg. Co., Cleveland.  
New York Lock Co., Branford, Ct.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

**Locks, Latches, &c.—**  
Lawrence Bros., Sterling, Ill.  
National Mfg. Co., Sterling, Ill.  
New York Lock Co., Branford, Ct.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Taylor & Boggis Foundry Co., Cleveland.  
United States Steel Lock Co., Clinton, Ia.  
Wagner Mfg. Co., Cedar Falls, Ia.  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Pad—**  
Ames Sword Co., Chicopee, Mass.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Tower & Lyon Co., 95 Chambers St.,  
New York.  
United States Steel Lock Co., Clinton, Ia.  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Prison—**  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Refrigerator—**  
Universal Fastener Co., Cleveland, O.

**Locks, Safe Deposit—**  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Sash—**  
Brohard Co., Hutchinson St. & Columbia  
Ave., Philadelphia, Pa.  
Caldwell Mfg. Co., Rochester, N. Y.  
H. B. Ives Co., New Haven, Ct.  
Pullman Mfg. Co., Rochester, N. Y.  
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.  
Taylor & Boggis Foundry Co., Cleveland.  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locks, Trunk and Bag—**  
R. C. Jenkinson & Co., Newark, N. J.  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

**Locomotive Blocks, Reflect-**  
ors, Transfer Tables—  
(See Blocks, Reflectors, Transfer Tables.)

**Locomotive Clocks—**  
(See Clocks, Locomotive.)

**Locomotive Jacket Steel**  
Sheets—  
American Sheet & Tin Plate Co., Pitts-  
burgh, Pa.

**Locomotive Liners—**  
L. S. Starrett Co., Athol, Mass.

**Locomotive Spark Arrester**  
Plates—  
Harrington & King Perforating Co., 224  
N. Union St., Chicago, Ill.  
Charles Mundt & Sons, 441 Pearl St.,  
New York.

**Locomotives, Steam and**  
Electric—  
Atlas Car & Mfg. Co., Cleveland, O.  
Thomas F. Conard, 119 So. 4th St., Phil-  
adelphia, Pa.  
General Electric Co., Schenectady, N. Y.  
Jeffrey Mfg. Co., Columbus, O.  
Arthur Koppel, 66-68 Broad St., N. Y.  
Taunton Locomotive Mfg. Co., Taunton,  
Mass.  
Westinghouse Electric & Mfg. Co., Pitts-  
burgh, Pa.

**MERCHANTS.**  
Contractors' Equipment Co., Betz Bldg.,  
Philadelphia, Pa.  
Barclay M. Everson, Pittsburgh, Pa.  
Ernest Law & Co., 15th & Market Sts.,  
Philadelphia, Pa.  
McDowell & Co., Pittsburgh, Pa.  
Bossiter, MacGovern & Co., Inc., 141  
Broadway, New York.  
Wickes Bros., Saginaw, Mich.

**Locomotive Works Ma-**  
chinery—  
American Tool Works Co., Cincinnati, O.  
Baker Bros., Toledo, O.  
Cincinnati Shaper Co., Cincinnati, O.  
Cleveland Punch & Shear Works Co.,  
Cleveland, O.  
Hilles & Jones Co., Wilmington, Del.  
Niles-Bement-Pond Co., 134-138 Liberty St.,  
New York.

Poulterer & Co., Bullitt Bldg., Phila-  
delphia, Pa.  
Wm. Sellers & Co. (Inc.), Philadelphia.  
Wickes Bros., Saginaw, Mich.

**Lodge Bells—**  
(See Bells, Altar and Lodge.)

**Log and Lumber Tools—**  
Lane & Bodley Co., Cincinnati, O.  
Lidgerwood Mfg. Co., 94 Liberty St., N. Y.  
Morley Bros., Saginaw, Mich.  
Wickes Bros., Saginaw, Mich.

**Log Binders, Chains—**  
(See Binders, Chains.)

**Logging and Driving Tools—**  
(See Tools, Lumber, also Log and Lumber Tools.)

**Log Hauls—**  
Buhl Malleable Co., Detroit, Mich.  
Jeffrey Mfg. Co., Columbus, O.  
Lane & Bodley Co., Cincinnati, O.  
A. Leschen & Sons Rope Co., St. Louis.  
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
Soule Steam Feed Works, Meridian, Miss.  
Southern Engine & Boiler Works, Jackson, Tenn.  
Wickes Bros., Saginaw, Mich.

**Log Jacks—**  
(See Jacks, Log.)

**Logs, Marine—**  
Riggs & Bro., 310 Market St., Philadelphia, Pa.  
Wickes Bros., Saginaw, Mich.

**Loom Bolts—**  
(See Bolts, Loom.)

**Loom Repair Parts—**  
Homer F. Livermore, Boston, Mass.

**Looms, Duck—**  
Poole Engineering & Machine Co., Baltimore, Md.

**Loops, Furniture—**  
(See Staples and Loops, Furniture.)

**Loops, Trunk—**  
J. H. Sessions & Son, Bristol, Ct.

**Lubricants—**  
(See also Grease, Axle.)

Jos. Dixon Crucible Co., Jersey City, N. J.  
Robins Conveying Belt Co., 17-22 Park Row, New York.

**Lubricants, Gear—**  
Ironside Co., Columbus, O.

**Lubricants, Rope—**  
Ironside Co., Columbus, O.  
A. Leschen & Sons Rope Co., St. Louis.

**Lubricants, Wire Rope—**  
Ironside Co., Columbus, O.  
A. Leschen & Sons Rope Co., St. Louis.

**Lubricators—**  
Charles H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.

Crane Co., Chicago, Ill.  
Crosby Steam Gate & Valve Co., Boston.  
Eymon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Gem Mfg. Co., Pittsburgh, Pa.  
Lunkenheimer Co., Cincinnati, O.  
McNab & Harlin Mfg. Co., 56 John St., New York.

Walworth Mfg. Co., Boston, Mass.

**Lubricators, Mechanical Pump—**  
Lunkenheimer Co., Cincinnati, O.

**Lugs, Tank—**  
M. Lanz & Sons, Pittsburgh, Pa.  
Racine Tank Lug Co., Racine, Wis.

**Lumber Tools, &c.—**  
(See Tools, &c.)

**Machetes—**  
Henry Dieston & Sons, Philadelphia, Pa.

**Machine Bolts—**  
(See Bolts, Machine.)

**Machine Handles, Knives, Levers, Screws—**

(See Handles, Knives, Levers, Screws.)  
**Machinery is classified under the headings descriptive of character thereof.**

**Machinery Dealers—**

Geo. E. Affleck, 109 Liberty St., N. Y.  
Apex Equipment Co., 11 Broadway, N. Y.  
Faird Machinery Co., Pittsburgh, Pa.  
Charles Behlen, 72 Trinity Pl., New York.  
Blanchard Machine Co., Boston, Mass.  
Geo. H. Bowler, Cleveland, O.  
Marvin Briggs, 12 Broadway, New York.  
Carlin Machinery & Supply Co., Allegheny, Pa.

Chandler & Farquhar, Boston, Mass.  
Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.

Cutter, Wood & Stevens Co., Boston, Mass.  
W. P. Davis Mach. Co., Rochester, N. Y.  
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Barclay M. Everson, Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Fulton Blower & Supply Co., 180 Fulton St., New York.

Hannan & Finton, Springfield, Mass.  
Hill, Clarke & Co., Boston, Mass.  
Henry F. Hill, Boston, Mass.

J. H. Hillman & Son, Pittsburgh, Pa.  
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Manning, Maxwell & Moore, 65 Liberty St., New York.  
Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

F. B. Maxim, Boston, Mass.  
J. J. McCabe, 14 Dey St., New York.  
McDowell & Co., Pittsburgh, Pa.

McDowell, Stocker & Co., 59-61 So. Canal St., Chicago, Ill.

Niles-Bement-Fond Co., 136-138 Liberty St., New York.

Patterson Tool & Supply Co., Dayton, O.  
F. R. Phillips & Sons Co., Philadelphia.

Poulter & Co., Bullitt Bldg., Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.  
Prentiss Tool & Supply Co., 115 Liberty St., New York.

Rossiter, MacGovern & Co., 17 Battery Pl., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Sebastian Lathe Co., Cincinnati, O.  
L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Shook & Fletcher, Birmingham, Ala.  
John Steptoe Shaper Co., Cincinnati, O.  
Stiles-Morse Co., 63 W. Washington St., Chicago, Ill.

Thomas & Lowe Machinery Co., Providence, R. I.  
Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

J. R. Vandick Co., 8 Dey St., New York.  
Von Wyck Machine Tool Co., Cincinnati, O.

Walsh's Sons & Co., Newark, N. J.



Wickes Bros., Saginaw, Mich.  
C. C. Worme Machy. Co., Detroit, Mich.  
Mason G. Worth & Co., Real Estate  
Trust Bldg., Philadelphia, Pa.  
Walter A. Zelnicker Supply Co., St.  
Louis, Mo.

### **Machinery, Electric Min- ing—**

General Electric Co., Schenectady, N. Y.  
Blowing Engineering Co., Cleveland, O.

### **Machinery, Mining—** (See Mining Machinery.)

### **Machinery, Second Hand—** (See Second Hand Machinery.)

### **Machines, Boring—** (See Mills, Boring and Turning.)

### **Machines, Painting and Whitewashing—**

(See Paint and Whitewash Spraying Ma-  
chines.)

### **Machines, Sewing—** (See Sewing Machines.)

### **Machines, Washing—** (See Washing Machines.)

### **Machinists' Clamps, Rules, Scrapers, Squares—**

(See Clamps, Rules, Scrapers, Squares.)

### **Magazines, Iron—** Garry Iron & Steel Co., Cleveland, O.

### **Magnet Hammers—** (See Hammers.)

### **Magnetic Separators—** (See Separators, Magnetic.)

### **Magnets for Testing—**

Holtzer-Cabot Electric Co., Boston, Mass.

### **Magnets, Lifting—**

Jos. F. McCoy Co., 157 Chambers St.,  
New York.

### **Magnet Wire—** (See Wires, Electrical.)

### **Mail Boxes, Catchers—** (See Boxes, Catchers.)

### **Malleable Clevises, Hooks and Eyes, Rings—**

(See Clevises, Hooks and Eyes, Rings.)

### **Malleable Iron Castings, Hinges—**

(See Castings, Hinges.)

### **Mallets, Calking—**

W. & J. Tiebout, 118 Chambers St., N. Y.

### **Mallets, Rawhide Capped—**

New Process Raw Hide Co., Syracuse,  
N. Y.

### **Mallets, Rubber—**

Osborn Mfg. Co., Cleveland, O.

### **MERCHANTS.**

J. W. Paxson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.

### **Mallets, Wooden—**

Baker, McMillen Co., Akron, O.  
R. Bliss Mfg. Co., Pawtucket, R. I.

Boston & Lockport Block Co., Boston.  
E. B. Estes & Sons, 45-47 John St., N. Y.

W. R. Hartigan, Collinsville, Ct.  
Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

John Sommer's Son, Newark, N. J.  
Stanley Rule & Level Co., New Britain, Ct.

Union Hardware Co., Torrington, Ct.  
Watte, Ranlet & Co., Boston, Mass.

### **Mandrels—**

Adams Co., Dubuque, Ia.  
E. C. Atkins & Co., Indianapolis, Ind.  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.

Cincinnati Screw & Tap Co., Cincinnati.  
Cleveland Twist Drill Co., Cleveland, O.

Henry Diston & Sons, Philadelphia, Pa.  
Etna Mfg. Co., 253 Broadway, New York.

Fairbanks Co., 416 Broome St., New York.  
W. G. Le Count, South Norwalk, Ct.

Morse Twist Drill & Machine Co., New  
Bedford, Mass.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Pratt & Whitney Co., Hartford, Ct.

John M. Rogers Boat, Gauge & Drill  
Works, Gloucester City, N. J.

Standard Tool Co., Cleveland, O.  
Wells Bros. & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,  
Mass.

### **Mandrels, Lathe Expand- ing—**

Earle Gear & Machine Co., Oxford and  
Mascher Sts., Philadelphia, Pa.

Wm. G. Le Count, So. Norwalk, Ct.  
Morse Twist Drill & Machine Co., New  
Bedford, Mass.

### **Mandrels, Saw—** (See Arbors, Circular Saw.)

### **Mandrels, Stove Pipe—**

Adams Co., Dubuque, Ia.

### **Mane Combs—** (See Combs, Mane and Tail.)

### **Manganese—** Goldschmidt Thermit Co., 43 Exchange Pl., New York.

### **Manganese Bronze Cast- ings, Forgings—**

(See Bronze Castings, Forgings.)

### **Manganese Bronze Ingots—** (See Ingots.)

### **Mangers, Feed—**

A. Buch's Sons Co., Elizabethtown, Pa.  
S. Cheney & Son, Manlius, N. Y.

Donovan Wire & Iron Co., Toledo, O.  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Warsaw Elevator Co., Warsaw, N. Y.  
R. W. Whitehurst Co., Norfolk, Va.

### **Man Heads—**

E. Keeler Co., Williamsport, Pa.  
Lukens Iron & Steel Co., Coatesville, Pa.

### **Man Hole Boring Machines—** (See Boring Machines, Man Hole.)

### **Man Hole Castings—** (See Castings, Man Hole, Cistern, Sewer, &c.)

### **Manicure Goods—**

H. C. Cook Co., Ansonia, Ct.  
Fran Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls,  
R. I.

Nicholson File Co., Providence, R. I.  
Wire Goods Co., Worcester, Mass.

### **Manicure Sets—** (See Sets, Silver Plated.)

### **Manifold Systems, Bill- Charge, &c.—**

Tengwall File & Ledger Co., Ravenswood  
Sta., Chicago, Ill.

**Mantel Grates—**

(See Grates.)

**Manual Training School**

(See School Outfits, Manual Training.)

**Manufacturing Sites—**

Chicago, Milwaukee & St. Paul Railway,  
Old Colony Bldg., Chicago, Ill.  
Factory Exchange, Boston, Mass.  
J. H. Hillman & Son, Pittsburgh, Pa.  
Illinois Central Railroad Co., 506 Central  
Station, Chicago, Ill.  
Southern Railway & Mobile & Ohio R.  
R., Washington, D. C.  
James Sweeney, Jr., North Tonawanda,  
N. Y.

**Manure Forks, Hooks.**

**Pumps—**

(See Forks, Hooks, Pumps.)

**Marble Working Machinery—**

F. R. Patch Mfg. Co., Rutland, Vt.

**Marine Clocks—**

(See Clocks, Marine.)

**Marine Hardware**

Marine Hardware & Equipment Co., So.  
Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Marine Reverse Gears—**

(See Gears, Marine Reverse.)

**Markers, Corn—**

A. Buch's Sons Co., Elizabethtown, Pa.

**Markers, Chain—**

Otis A. Smith, Rockfall, Ct.

Stanley Rule & Level Co., New Britain, Ct.

**Markers, Ice—**

(See Ice Harvesting Tools.)

**Markers, Stock (Buttons.**

**Labels, Tattoos, &c.)—**

M. J. Bartlett & Son, 196 S. Clark St.,  
Chicago, Ill.

**Markers, Tire—**

Wiley & Russell Mfg. Co., Greenfield,  
Mass.

**Market Wire—**

(See Wire, Iron and Steel, &c.)

**Marking Devices, Pin Tick-**

**et—**

Tucker & Dorsey Mfg. Co., Indianapolis,  
Ind.

**Marking Gauges—**

(See Gauges.)

**Marking Machines—**

Pratt & Whitney Co., Hartford, Ct.

Dwight Slate Mfg. Co., Hartford, Ct.

**Marking Outfit—**

Sawyer Tool Mfg. Co., Fitchburg, Mass.

**Marl Gauges—**

Mt. Pleasant Tool Co., Mt. Pleasant, Pa.

**Marlin Spikes—**

(See Spikes, Marlin, Pickers, &c.)

**Mashers, Vegetable, &c.—**

Goodell Co., Antrim, N. H.

Wm. E. Hartigan, Collinsville, Ct.

F. E. Kohler & Co., Canton, O.

L. D. Parkhurst, Danielson, Ct.

John Sommer's Son, Newark, N. J.

A. C. Williams, Ravenna, O.

(See also Kitchen Articles, Wire.)

**Masons' Chalk, &c., Lines—**

(See Lines, Chalk, &c.)

**Match Boxes, Safes—**

(See Boxes, Safes.)

**Match Box Holders—**

(See Holders, Match Box.)

**Matchers, Wood—**

Laure Mfg. Co., Montpelier, Vt.

**Material Old—**

American Bureau of Inspection & Tests,  
Monadnock Bldg., Chicago, Ill.

Apex Equipment Co., 11 Broadway, N. Y.

M. J. & M. Blake, 97 10th Ave., N. Y.

Bole, Ross & Co., Pittsburgh, Pa.

Rosworth Holding Co., Cleveland, O.

Geo. H. Bowler, Cleveland, O.

Browning Engineering Co., Cleveland, O.

Caine & Plitt, Real Estate Trust Bldg.,  
Philadelphia, Pa.

Colborne Mfg. Co., 35 Indiana St., Chi-  
cago, Ill.

John W. Cole, Providence, R. I.

Thomas P. Conard, 119 So. 4th St., Phil-  
adelphia, Pa.

Justice Cox, Jr. & Co., Ltd., Bullitt  
Bldg., Philadelphia, Pa.

Robert M. Cunliffe, 1140-1142 Washington  
Ave., Philadelphia, Pa.

Donaldson & Newton, 421 Chestnut St.,  
Philadelphia, Pa.

Wm. J. Dunn, Fall River, Mass.

John Eichleay, Jr. Co., Pittsburgh, Pa.

Walter Graham, Harrison Bldg., Phila-  
delphia, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

H. A. Hitner's Son, Huntington St. and  
Aramingo Ave., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg.,  
Philadelphia, Pa.

Isaac Joseph Iron Co., Cincinnati, O.

Jos. Joseph & Bros. Co., Cincinnati, O.

A. V. Kaiser & Co., 222 So. 3d St.,  
Philadelphia, Pa.

Jerome Keesley & Co., 421 Chestnut St.,  
Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts.,  
Philadelphia, Pa.

E. B. Leaf & Co., Real Estate Trust  
Bldg., Philadelphia, Pa.

Jno. Leonard & Co., 220 Broadway, N. Y.

Henry Lewis & Co., 26 So. 15th St., Phil-  
adelphia, Pa.

May & Spalding, Atlanta, Ga.

J. H. McClure & Son, 202 Walnut St.,  
Philadelphia, Pa.

McDowell & Co., Pittsburgh, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia.

Nicetown Plate Washer Co., Philadelphia,  
Pa.

Northern Machinery Co., Minneapolis,  
Minn.

F. R. Phillips & Sons Co., Philadelphia.

Pilling & Crane, Girard Bldg., Philadel-  
phia, Pa.

Pittsburgh Pipe & Iron Co., Allegheny,  
Pa.

Pittsburgh Rail Supply Co., Pittsburgh,  
Pa.

Poulterer & Co., Bullitt Bldg., Philadel-  
phia, Pa.

Richardson & Co., Inc., Pittsburgh, Pa.

M. H. Rogers, Bridgeport, Ct.

Frank Samuel, 15th and Market Sts.,  
Philadelphia, Pa.

M. Samuel & Sons, Brooklyn, N. Y.

Shook & Fletcher, Birmingham, Ala.

Morton B. Smith Co., 243 Front St., N. Y.

Union Rail Co., Huntington, W. Va.

Walsh's Sons & Co., Newark, N. J.

Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

### **Mats and Mattings, Rubber—**

Whitman & Barnes Mfg. Co., Akron, O.

### **Mats, Table, Wire—**

(See Household Articles, Wire.)

### **Mats, Wire and Steel—**

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Estey Wire Works Co., 59 Fulton St., New York.

Glen Mfg. Co., Ellwood City, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

### **Mattocks, Garden—**

American Fork & Hoe Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

### **Mattocks—**

(See Picks.)

### **Mauls—**

S. Cheney & Son, Manlius, N. Y.

John C. Kupferle, St. Louis, Mo.

Plueger & Henger Mfg. Co., St. Louis, Mo.

A. C. Williams, Ravenna, O.

### **Measures, Board, Log and Wood—**

Chapin-Stephens Co., Pine Meadow, Ct.

### **Measures, Dry Iron—**

W. J. Clark Co., Salem, O.

### **Measures, Dry, Wooden—**

Richmond Cedar Works, Richmond, Va.

### **Measures, Linear—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Upson Nut Co., Cleveland, O.

### **Measures, Liquid—**

John Chatillon & Sons, 85 Cliff St., N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

### **Measures, Tape—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

Simonds Mfg. Co., Fitchburg, Mass.

Smith & Hemenway Co., 236 Broadway, New York.

L. S. Starrett Co., Athol, Mass.

Waterbury Brass Co., Waterbury, Ct.

### **Measuring Faucets, Wheels—**

(See Faucets, Wheels.)

### **Measuring Rods, Standard, End—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Pratt & Whitney Co., Hartford, Ct.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

### **Meat and Vegetable Choppers and Cutters—**

(See Cutters, Food, Meat and Vegetable.)

### **Meat Dishes—**

(See Dishes, Silver Plated.)

### **Meat Hooks, Presses—**

(See Hooks, Presses.)

### **Mechanical Rubber Goods—**

(See Rubber Goods, Mechanical.)

### **Menders, Hose—**

(See Hose Attachments.)

### **Menders, Steel Taps—**

Eyelet Tool Co., Boston, Mass.

### **Mending Plates—**

(See Plates, Mending.)

### **Mercantile Cabinet Files—**

(See Cabinets, File, Mercantile.)

### **Merchants, Iron and Steel—**

(See Iron and Steel Brokers and Merchants.)

### **Merchants, Metal—**

American Metal Co., 52 Broadway, N. Y.

Bassett-Presley Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

John Davol & Sons, 100 John St., N. Y.

Fairbanks Co., 416 Broome St., New York.

Hendricks Bros., 49 Cliff St., N. Y.

J. H. Hillman & Son, Pittsburgh, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.

Charles Millar & Son Co., Utica, N. Y.

John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway, New York.

Morton R. Smith Co., 243 Front St., N. Y.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Wetherell Bros., 120 Liberty St., N. Y.

### **Metal, Anti-Friction, Bronze, &c.—**

(See Anti-Friction, Bronze, &c.)

### **Metal Furniture—**

(See Furniture, Metal.)

### **Metal Goods, Sheet, to Order—**

(See Sheet Metal Goods, to Order.)

### **Metal Lacquers—**

(See Lacquers.)

### **Metallic Eyelets, Shingles—**

(See Eyelets, Shingles.)

### **Metal, Platers' or Gold—**

Bridgeport Brass Co., Bridgeport, Ct.

Scovill Mfg. Co., Waterbury, Ct.

### **Metal Polish, Scribers—**

(See Polish, Scribers.)

### **Metal Specialties, Ornamental Sheet—**

Edwards Mfg. Co., Cincinnati, O.

Fedders Mfg. Works, Buffalo, N. Y.

Globe Machine & Stamping Co., Cleveland, O.

Harvey Hubbell, Bridgeport, Ct.

### **Metal Specialties to Order—**

Avery Stamping Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.

W. J. Clark & Co., Salem, O.

Crosby Co., Buffalo, N. Y.

Fedders Mfg. Works, Buffalo, N. Y.

Gem Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

Hoerle Mfg. Co., Pittsburgh, Pa.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Kilborn & Bishop Co., New Haven, Ct.

E. Konigslow Stamping & Tool Works, Cleveland, O.

Metal Stamping Co., Niagara Falls, N. Y.

Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.

New Britain Hardware Mfg. Co., New Britain, Ct.

Reading Machine & Tool Co., Reading, Pa.

Arthur T. Rutter & Co., 256 Broadway, New York.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Union Mfg. & Specialty Co., Buffalo, N. Y.

Wilson & Smith, Worcester, Mass.

**Metals, Perforated Sheet—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Clinton Wire Cloth Co., Clinton, Mass.

Erdle & Schenck, Rochester, N. Y.

Harrington & King Perforating Co., 209 No. Union St., Chicago, Ill.

Charles Mundt & Sons, 441-447 Pearl St., New York.

**Metal Wheel Machinery—**  
(See Wheel Machinery, Metal.)

**Metal Work, Milled, Turned or Stamped, to Order—**

American Tube & Stamping Co., Bridgeport, Ct.

Cheswick Mfg. Co., Cheswick, Pa.

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

H. C. Cook Co., Ansonia, Ct.

G. Drouve Co., Bridgeport, Ct.

Eastern Bolt & Nut Co., Providence, R. I.

Fedders Mfg. Works, Buffalo, N. Y.

Gem Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

Hardware Supply Co., Grand Rapids, Mich.

Hayden-Roth-Evans Co., Cincinnati, O.

Harvey Hubbell, Bridgeport, Ct.

Hubley Mfg. Co., Lancaster, Pa.

R. C. Jenkinson & Co., Newark, N. J.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Mossberg Wrench Co., Central Falls, R. I.

New Britain Hardware Mfg. Co., New Britain, Ct.

Arthur T. Rutter & Co., 256 Broadway, New York.

**Metal Work, Ornamental Sheet—**

Hayden-Roth-Evans Co., Cincinnati, O.

Ira B. Smith, Bristol, Ct.

**Meters, Ampere Recording—**

Bristol Co., Waterbury, Ct.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Meters, Electric—**

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Meters, Volt Recording—**

Bristol Co., Waterbury, Ct.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

**Meters, Watt Recording—**

Bristol Co., Waterbury, Ct.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Meters, Water—**

American Valve & Meter Co., Cincinnati, O.

Builders' Iron Foundry, Providence, R. I.

**Meters, Water Current—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Mica—**

Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.

**Micrometer Calipers, Holders—**

(See Calipers, Holders.)

**Micrometers—**

Athol Machine Co., Athol, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Pratt & Whitney Co., Hartford, Ct.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

J. T. Slocumb & Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

**Micrometers, Paper—**

Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

**Milk Cans, Strainers—**

(See Cans, Strainers.)

**Milk Can Stock—**

Sidney Shepard & Co., Buffalo, N. Y.

Sturges & Burn Mfg. Co., Chicago, Ill.

**Milkman's Bells—**

(See Bells, Milkman's.)

**Milled, Turned or Stamped Metal Work, to Order—**

(See Metal Work, Milled, Turned or Stamped, to Order.)

**Milling and Drilling Machines, Butt—**

F. B. Shuster Co., New Haven, Ct.

**Milling Machine Attachments—**

Adams Co., Dubuque, Ia.

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington, Ct.

Ideal Machine Co., Hartford, Ct.

Kempsmith Mfg. Co., Milwaukee, Wis.

Pratt & Whitney Co., Hartford, Ct.

**Milling Machines—**

Adams Co., Dubuque, Ia.

American Watch Tool Co., Waltham, Mass.

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Asa S. Cook Co., Hartford, Ct.

Espen Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.  
 Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring & Varick Sts., New York.  
 E. Harrington, Son & Co., Philadelphia.  
 Hendey Machine Co., Torrington, Ct.  
 Hilles & Jones Co., Wilmington, Del.  
 Kempsmith Mfg. Co., Milwaukee, Wis.  
 R. K. Le Blond Machine Tool Co., Cincinnati, O.  
 J. J. McCabe, 14 Dey St., New York.  
 Morton Mfg. Co., Muskegon Heights, Mich.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Pedrick & Ayer Co., 87 Liberty St., N. Y.  
 Pratt & Whitney Co., Hartford, Ct.  
 A. D. Quint, Hartford, Ct.  
 Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.  
 F. B. Shuster Co., New Haven, Ct.  
 Waterbury Fertilizer Foundry & Machine Co., Waterbury, Ct.

## MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.  
 J. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Marshall & Husehart Machinery Co., 62-64 So. Canal St., Chicago, Ill.  
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.  
 Prentiss Tool & Supply Co., 115 Liberty St., New York.  
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
 Wickes Bros., Saginaw, Mich.  
 C. C. Wormer Machinery Co., Detroit, Mich.

**Milling Machines, Bench and Hand—**

American Watch Tool Co., Waltham, Mass.  
 Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring & Varick Sts., New York.  
 Pratt & Whitney Co., Hartford, Ct.

**Milling Machines, Double End—**

Pratt & Whitney Co., Hartford, Ct.  
 F. B. Shuster Co., New Haven, Ct.

**Milling Machines, Nut and Bolt Head—**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Pratt & Whitney Co., Hartford, Ct.  
 Dwight Slato Machine Co., Hartford, Ct.

**Milling Machines, Portable—**

H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

**Milling Machines, Test Piece—**

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

**Milling Machines, Turret—**

A. D. Quint, Hartford, Ct.

**Milling Machines, Universal—**

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington, Ct.

Kempsmith Mfg. Co., Milwaukee, Wis.

R. K. Le Blond Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Milling Machines, Vertical—**  
 Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Blake & Johnson, Waterbury, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cleveland Punch & Shear Works Co., Cleveland, O.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts., New York.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

**Mills, Adjustable Hollow—**  
 Geometric Drill Co., New Haven, Ct.

Morse Twist Drill & Machine Co., New Bedford, Mass.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

**Mill Saws—**  
 (See Saws, Mill, Mulay, Crosscut, Drag, &c.)

**Mills, Blooming—**  
 Morgan Construction Co., Worcester, Mass.

**Mills, Bone—**  
 W. J. Adam, Joliet, Ill.

C. O. Bartlett & Snow Co., Cleveland, O.

Blanchard Machine Co., Boston, Mass.

Enterprise Mfg. Co., Philadelphia, Pa.

**Mills, Boring and Facing—**  
 Binsse Machine Co., Newark, N. J.

**Mills, Boring and Turning—**  
 American Tool Works Co., Cincinnati, O.

Baker Bros., Toledo, O.

Baugh Machine Tool Co., Springfield, Mass.

Bickford Drill & Tool Co., Cincinnati, O.

Binsse Machine Co., Newark, N. J.

E. W. Bliss Co., Brooklyn, N. Y.

Emmard Mch. Tool Co., Bridgeport, Ct.

Colburn Machine Tool Co., Franklin, Pa.

Detrick & Harvey Machine Co., Baltimore, Md.

Draper Machine Tool Co., Worcester, Mass.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Fosdick Machine Tool Co., Cincinnati, O.

Fox Machine Co., Grand Rapids, Mich.

Gisholt Machine Co., Madison, Wis.

E. Harrington, Son & Co., Philadelphia, Pa.

Hoefer Mfg. Co., Freeport, Ill.

King Machine Tool Co., Cincinnati, O.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pawling & Harnishfeger, Milwaukee, Wis.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Pratt & Whitney Co., Hartford, Ct.  
Wm. Sellers & Co. (Inc.), 16th and Ham-  
ilton Sts., Philadelphia, Pa.

MERCHANTS

George E. Albeck, 107 Liberty St., N. Y.  
Baird Machinery Co., Pittsburgh, Pa.  
Brown & Zortman Machinery Co., Pitts-  
burgh, Pa.  
Carlin Machinery & Supply Co., Alle-  
gheny, Pa.  
J. H. Dawson Machinery Co., 39-41 S.  
Canal St., Chicago, Ill.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Manning, Maxwell & Moore, 85 Liberty  
St., New York.  
Marshall & Hunschart Machinery Co., 62-  
64 S. Canal St., Chicago, Ill.  
McDowell, Stocker & Co., 59 S. Canal St.,  
Chicago, Ill.  
Prentiss Tool & Supply Co., 115 Liberty  
St., New York.  
Frank Toomey, 127-131 No. 3d St., Phila-  
delphia, Pa.  
J. R. Vanduyck Co., 8 Dey St., New York.  
Wickes Bros., Saginaw, Mich.

**Mills, Car Wheel Boring—**  
Richford Drill & Tool Co., Cincinnati, O.  
Foodick Machine Tool Co., Cincinnati, O.  
Niles-Bement-Pond Co., 136-138 Liberty St.,  
New York.

Wm. Sellers & Co. (Inc.), 16th and Ham-  
ilton Sts., Philadelphia, Pa.

**Mills, Cider—**  
Cutaway Harrow Co., Higginum, Ct.  
R. W. Whitehurst Co., Norfolk, Va.

**Mills, Cinder—**  
Byram & Co., Inc., Detroit, Mich.  
Roversford Foundry & Machine Co.,  
Roversford, Pa.

**Mills, Coffee, Spice, &c.—**  
Arcade Mfg. Co., Freeport, Ill.  
Bronson-Walton Co., Cleveland, O.  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Enterprise Mfg. Co., Philadelphia, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Fanner Mfg. Co., Cleveland, O.  
Landers, Fray & Clark, New Britain, Ct.  
Lane Bros. Co., Poughkeepsie, N. Y.  
Charles Parker Co., Meriden, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
R. W. Whitehurst Co., Norfolk, Va.

**Mills, Continuous Billet,  
Rod, Hoop, Cotton Tie and  
Merchant Bar—**  
Morgan Construction Co., Worcester,  
Mass.

**Mills, Corn and Feed—**  
W. J. Adam, Joliet, Ill.  
Allis-Chalmers Co., Home Insurance  
Bldg., Chicago, Ill.  
C. O. Bartlett & Snow Co., Cleveland, O.  
Case Mfg. Co., Columbus, O.  
Chicago Scale Co., 292-296 Jackson Boule-  
vard, Chicago, Ill.  
Enterprise Mfg. Co., Philadelphia, Pa.  
Lane Bros. Co., Poughkeepsie, N. Y.  
Stover Mfg. Co., Freeport, Ill.  
R. W. Whitehurst Co., Norfolk, Va.

**Mills, Corn and Linseed  
Oil—**  
Chas. F. Elmes Engineering Works, 253-  
259 Fulton St., Chicago, Ill.

**Mills, Drug—**  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Enterprise Mfg. Co., Philadelphia, Pa.  
Landers, Fray & Clark, New Britain, Ct.  
Lane Bros. Co., Poughkeepsie, N. Y.  
Charles Parker Co., Meriden, Ct.

**Mills, End—**  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Cleveland Twist Drill Co., Cleveland, O.  
Gay & Ward, Athol, Mass.  
Morse Twist Drill & Machine Co., New  
Bedford, Mass.  
Pratt & Whitney Co., Hartford, Ct.  
Standard Tool Co., Cleveland, O.

**Mills, Family Grist—**  
Stover Mfg. Co., Freeport, Ill.

**Mills, For Rolling Tin Foil—**  
Blake & Johnson, Waterbury, Ct.  
Waterbury Farrel Foundry & Machine  
Co., Waterbury, Ct.

**Mills, Lath and Stave—**  
Filer & Stowell Co., Milwaukee, Wis.  
Wickes Bros., Saginaw, Mich.

**Mills, Paint—**  
C. O. Bartlett & Snow Co., Cleveland, O.

**Mills, Rod Tapering—**  
Standard Machinery Co., Providence,  
R. I.  
Waterbury Farrel Foundry & Machine  
Co., Waterbury, Ct.

**Mills, Soap Powder—**  
Blanchard Machine Co., Boston, Mass.

**Mill Supplies—**  
R. Bliss Mfg. Co., Pawtucket, R. I.  
Case Mfg. Co., Columbus, O.  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.  
E. Keeler Co., Williamsport, Pa.  
A. Leschen & Sons Rope Co., St. Louis,  
Mo.  
Charles Millar & Son Co., Utica, N. Y.  
New England Specialty Co., North East-  
on, Mass.  
W. S. Tyler Co., Cleveland, O.

**Mills, Vertical Turning and  
Boring—**

Bullard Machine Tool Co., Bridgeport, Ct.  
**Mills, Wind—**  
Flint & Walling Mfg. Co., Kendallville,  
Ind.  
Stover Mfg. Co., Freeport, Ill.

MERCHANTS

Crane Co., Chicago, Ill.  
**Mills, Wire Flattening—**  
Blake & Johnson, Waterbury, Ct.  
Standard Machinery Co., Providence, R. I.  
Waterbury Farrel Foundry & Machine  
Co., Waterbury, Ct.

**Mills, with Inserted Teeth—**  
Adams Co., Dubuque, Ia.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.  
Morse Twist Drill & Machine Co., New  
Bedford, Mass.  
Pratt & Whitney Co., Hartford, Ct.

**Mill Wire Goods—**  
(See Wire Goods, Mill.)

**Mill Work, Saw—**  
(See Saw Mill Machinery.)

**Mill Yard Steel Lamps—**  
(See Lamps, Steel Mill Yard, &c.)

**Mincing Knives—**

(See Knives, Mincing.)

**Mine Car Hitchings—**

(See Couplings, Mine Car.)

**Mineral Lands—**Southern Railway & Mobile & Ohio R.  
R., Washington, D. C.**Mine Supplies—**Allis-Chalmers Co., Home Insurance  
Bldg., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis,  
Mo.Charles Mundt & Sons, 441-447 Pearl St.,  
New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**Jos. F. McCoy Co., 157 Chambers St.,  
New York.**Miners' Lamps—**

(See Lamps, Miners'.)

**Mining Machinery—**

Allentown Rolling Mills, Allentown, Pa.

Allis-Chalmers Co., Home Insurance  
Bldg., Chicago, Ill.American Air Compressor Works, 26 Cort-  
landt St., New York.

Charter Gas Engine Co., Sterling, Ill.

Curry &amp; Vannan, Danville, Pa.

Farrel Foundry &amp; Mach. Co., Ansonia, Ct.

Fawcett Machine Co., Pittsburgh, Pa.

Harmon-Cogger Co., Bloomsburg, Pa.

Ingersoll-Sergeant Drill Co., 26 Cortlandt  
St., New York.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen &amp; Sons Rope Co., St. Louis.

May &amp; Spaulding, Atlanta, Ga.

McKiernan Drill Co., 120 Liberty St.,  
New York.

Rand Drill Co., 123 Broadway, New York.

John M. Rogers Boat, Gauge & Drill  
Works, Gloucester City, N. J.Weber Gas & Gasoline Engine Co., Kan-  
sas City, Mo.

Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**Broderick & Bascom Rope Co., St. Louis,  
Mo.

Browning Engineering Co., Cleveland, O.

Contractors' Equipment Co., Betz Bldg.,  
Philadelphia, Pa.**Mirror Frames—**

(See Frames, Mirror, Photograph, Metal.)

**Miter Boxes, Rods—**

(See Boxes, Rods.)

**Miter Planers—**

Millers Falls Co., 28 Warren St., N. Y.

Washburn Shops, Worcester, Mass.

**Miters, Beave Trough—**Berger Bros. Co., 231-237 Arch St., Phila-  
delphia, Pa.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Garry Iron &amp; Steel Co., Cleveland, O.

**Miter Squares—**

(See Squares, Try.)

**Mixers, Concrete—**H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.

Jeffrey Mfg. Co., Columbus, O.

**Mixers, Natural Gas—**

Hollands Mfg. Co., Erie, Pa.

**Mixers, Paint—**Poole Engineering & Machine Co., Balti-  
more, Md.**Mixers, Plastic Slate—**

F. H. Evans, Brooklyn, N. Y.

**Mixing Machines, Sand—**Barbour-Stockwell Co., Cambridgeport,  
Mass.

Gould &amp; Eberhardt, Newark, N. J.

Jeffrey Mfg. Co., Columbus, O.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Wm. Sellers &amp; Co. (Inc.), Philadelphia.

**Model and Experimental****Work—**

Adriance Machine Works, Brooklyn, N. Y.

Blount &amp; Lovell, Boston, Mass.

Thomas D. Carpenter, Brooklyn, N. Y.

Cleveland Galvanizing Works, Cleveland.

Penn-Sadler Machine Co., Hartford, Ct.

H. H. Franklin Mfg. Co., Syracuse,  
N. Y.Globe Machine & Stamping Co., Cleve-  
land, O.

Goodwin &amp; Kintz Co., Winsted, Ct.

Grant Mfg. & Machine Co., Bridgeport,  
Ct.

Hoerle Mfg. Co., Pittsburgh, Pa.

B. Konigsloew Stamping & Tool Works,  
Cleveland, O.

Frank Mossberg Co., Attleboro, Mass.

Penn Pattern Works, Chester, Pa.

Pratt &amp; Whitney Co., Hartford, Ct.

J. J. Ryan & Co., 68-74 W. Monroe St.,  
Chicago, Ill.

Webster &amp; Perks Tool Co., Springfield, O.

York Pattern Works, York, Pa.

**Models, Locomotive Link****Motion—**

Pedrick &amp; Ayer Co., 87 Liberty St., N. Y.

**Molasses Gates—**

(See Gates, Oil and Molasses.)

**Molders' Bellows—**

(See Bellows, Blacksmiths', &amp;c.)

**Molders' Tools—**

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-  
land, O.**Molding Machines, Car****Wheel—**Maywood Foundry & Machine Co.,  
Chamber of Commerce Bldg., Chicago.

Henry E. Pridmore, Chicago, Ill.

**Molding Machines, Foundry****dry—**

Adams Co., Dubuque, Ia.

Arcade Mfg. Co., Freeport, Ill.

W. F. &amp; John Barnes Co., Rockford, Ill.

Maywood Foundry & Machine Co.,  
Chamber of Commerce Bldg., Chicago.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Henry E. Pridmore, Chicago, Ill.

Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

Tabor Mfg. Co., Elizabeth, N. J.

Taylor, Wilson & Co., Ltd., Allegheny,  
Pa.Webster & Perks Tool Co., Springfield,  
Mass.**MERCHANTS.**

Power Specialty Co., 126 Liberty St., N. Y.

**Molding Machines, Pulley-**  
Maywood Foundry & Machine Co.,  
Chamber of Commerce Bldg., Chicago.  
Henry E. Pridmore, Chicago, Ill.

**MERCHANTS.**

Hill, Clarke & Co., Boston, Mass.

**Molding Machines, Stone-**  
F. R. Patch Mfg. Co., Rutland, Vt.

**Molding Machines, Wood-**  
Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
S. A. Woods Machine Co., S. Boston, Mass.

**Molding Sand-**  
(See Sand, Molding.)

**Moldings, Brass-**  
Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
Randolph-Clowes Co., Waterbury, Ct.  
**Molds, For Casting Metals-**  
Schwerdtle Stamp Co., Bridgeport, Ct.

**Molds, Glass-**  
Wheeling Mold & Foundry Co., Wheeling, W. Va.

**Molds, Ingot-**  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Reed F. Blair & Co., Pittsburgh, Pa.  
Logan Mfg. Co., Phoenixville, Pa.  
Mesta Machine Co., Pittsburgh, Pa.  
J. W. Paxson Co., Philadelphia, Pa.  
Philadelphia Tool & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.  
Wheeling Mold & Foundry Co., Wheeling, W. Va.

**Molds, Solder-**  
John C. Kupferle, St. Louis, Mo.

**Mole Traps-**  
(See Traps, Mole.)

**Molybdenum-**  
Goldschmidt Thermit Co., 43 Exchange Pl., New York.

**Molybdenum-Nickel-**  
Geo. G. Blackwell, Sons & Co., Liverpool, England.

**Money Drawers-**  
(See Tills, Alarm.)

**Mops, Mop Sticks, &c.-**  
Arcade Mfg. Co., Freeport, Ill.  
Estes & Sons, Fall River, Mass.  
F. E. Kohler & Co., Canton, O.  
A. J. Phillips Co., Fenton, Mich.  
Reading Hardware Co., Reading, Pa.  
Stover Mfg. Co., Freeport, Ill.

**Mortar Hoes, Hoists-**  
(See Hoes, Hoists.)  
**Mortisers, Hollow Chisel-**  
S. A. Woods Machine Co., S. Boston, Mass.

**Mortising Machines-**  
W. F. & John Barnes Co., Rockford, Ill.  
Gould & Eberhardt, Newark, N. J.  
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

**Mosquito Nettings-**  
(See Nettings, Mosquito.)

**Motor Cycles-**  
Reading Standard Cycle Mfg. Co., Reading, Pa.

**Motors, Compressed Air-**  
Chisholm & Moore Mfg. Co., Cleveland, O.  
Helwig Mfg. Co., St. Paul, Minn.  
Northern Engineering Works, Detroit, Mich.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

**Motors, Electric-**  
Thos. H. Dallett & Co., York St. and Sedgely Ave., Philadelphia, Pa.  
General Electric Co., Schenectady, N. Y.  
Gilmore Electric Co., So. Boston, Mass.  
Holtzer-Cabot Electric Co., Boston, Mass.  
Jeffrey Mfg. Co., Columbus, O.  
Northern Electrical Mfg. Co., Madison, Wis.

Robbins & Myers Co., Springfield, O.  
Sheffield Car Co., Three Rivers, Mich.  
Sprague Electric Co., 527-531 W. 34th St., New York.  
Stow Mfg. Co., Binghamton, N. Y.  
B. F. Sturtevant Co., Boston, Mass.  
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**MERCHANTS.**  
Charles Behlen, 72 Trinity Pl., New York.  
Case Mfg. Co., Columbus, O.  
Charles E. Dustin Co., 11 Broadway, New York.

McDowell & Co., Pittsburgh, Pa.  
Rossiter, MacGovern & Co., Inc., 141 Broadway, New York.  
L. P. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
Stewart Electrical Co., Cincinnati, O.  
Thompson, Son & Co., 114 Liberty St., New York.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.  
Walsh's Sons & Co., Newark, N. J.  
Wickes Bros., Saginaw, Mich.

**Motors, Electric Fan-**  
General Electric Co., Schenectady, N. Y.  
W. R. Ostrander & Co., 22 Dey St., N. Y.  
Robbins & Myers Co., Springfield, O.  
Sprague Electric Co., 527-531 W. 34th St., New York.

B. F. Sturtevant Co., Boston, Mass.  
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Motor Springs-**  
(See Springs, Motor.)

**Motors, Water-**  
Gilmore Electric Co., So. Boston, Mass.  
Humphries Mfg. Co., Mansfield, O.

**MERCHANTS.**  
Power Specialty Co., 126 Liberty St., New York.

**Motor Truck Parts-**  
Federal Mfg. Co., Cleveland, O.

**Mountings, Automobile and Carriage-**

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Mountings, Fishing Rod-**  
Clark, Horrocks Co., Utica, N. Y.

**Mouse Traps-**  
(See Traps, Rat and Mouse.)

**Movers, Car-**  
(See Pushers, Car.)

**Movers, Heavy Machinery-**  
Peterson, Seburn & Co., Pittsburgh, Pa.

**Movers, Piano-**  
Shipman, Bradt & Co., De Kalb, Ill.

**Mowers, Lawn-**  
Blair Mfg. Co., Springfield, Mass.  
Coldwell Lawn Mower Co., Newburg, N. Y.  
Enterprise Mfg. Co., Philadelphia, Pa.



Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.  
 Ney Mfg. Co., Canton, O.  
 Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.  
 Supplee Hardware Co., Philadelphia, Pa.  
 Whitman & Barnes Mfg. Co., Akron, O.

#### **Muck Bars—**

(See Bars, Muck.)

#### **Mud Guards—**

(See Dashes and Fenders, Carriage, Automobile, &c.)

#### **Mufflers, Annealing—**

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### **Mufflers, Exhaust—**

South Pittsburgh Iron Works, Claysville, Pa.

#### **Mufflers, Gas and Gasoline Engine—**

South Pittsburgh Iron Works, Claysville, Pa.

#### **Mule Saws—**

(See Saws, Crosscut, Drag, Mill, &c.)

#### **Mule and Horse Shoes—**

(See Shoes, Horse and Mule.)

#### **Music Desk Springs—**

(See Braces, Music Rack.)

#### **Muzzles—**

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

#### **Nail Bins, Claws, Clippers, Pullers, &c.—**

(See Bins, Claws, Clippers, Pullers, &c.)

#### **Nail Kegs—**

(See Kegs, Nail, Bolt, Nut, &c.)

#### **Nail Machines, Cut—**

Curry & Vannan, Danville, Pa.

Kimball Bros. & Sprague, Brockton, Mass.

#### **Nail Machines, Furniture—**

Blake & Johnson, Waterbury, Ct.

#### **Nail Machines, Shoe—**

Kimball Bros. & Sprague, Brockton, Mass.

#### **Nail Machines, Wire—**

Blake & Johnson, Waterbury, Ct.

Cleveland Punch & Shear Works Co., Cleveland, O.

Globe Machine & Stamping Co., Cleveland, O.

Kimball Bros. & Sprague, Brockton, Mass.

H. J. Miller's Sons, Bridgewater, Mass.

Henry Perkins Co., Bridgewater, Mass.

National Machinery Co., Tiffin, O.

Turner Vaughn & Taylor Co., Cuyahoga Falls, O.

#### **Nail Pullers—**

(See Pullers, Nail.)

#### **Nails and Studs, Ornamental—**

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

#### **Nails and Tacks, Brush—**

Cobb & Drew, Plymouth, Mass.

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Derby, Ct.

#### **Nails and Tacks, Copper—**

Blake & Johnson, Waterbury, Ct.

Cobb & Drew, Plymouth, Mass.

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.

Shelton Co., Derby, Ct.

#### **Nails and Tacks, Trunk—**

Cobb & Drew, Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Derby, Ct.

#### **Nails, Boat—**

Ripley & Bartlett, Plymouth, Mass.

#### **Nails, Clout—**

Cobb & Drew, Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Derby, Ct.

#### **Nails, Copper Shoe—**

(See Nails and Tacks, Copper.)

#### **Nails, Corrugated—**

Globe Mfg. Co., Taunton, Mass.

Ripley & Bartlett, Plymouth, Mass.

#### **Nails, Countersink Head—**

Globe Mfg. Co., Taunton, Mass.

Ripley & Bartlett, Plymouth, Mass.

#### **Nails, Cut—**

Grand Crossing Tack Co., Grand Crossing, Ill.

La Belle Iron Works, Steubenville, O.

H. J. Miller's Sons, Bridgewater, Mass.

Republic Iron & Steel Co., Chicago, Ill.

Shelton Co., Derby, Ct.

#### **Nails, Fender—**

H. O. Canfield, Bridgeport, Ct.

#### **Nails, Hob—**

Ripley & Bartlett, Plymouth, Mass.

Louis Sacks Iron Foundry, Newark, N. J.

#### **Nails, Horseshoe—**

Capewell Horse Nail Co., Hartford, Ct.

Livingston Nail Co., 104 Reade St., N. Y.

H. J. Miller's Sons, Bridgewater, Mass.

Putnam Horse Nail Co., Neponset, Boston, Mass.

Wiebush & Hilger, 9-15 Murray St., N. Y.

#### **Nails, Last—**

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

#### **Nails, Picture—**

Globe Mfg. Co., Taunton, Mass.

Parker Wire Goods Co., Worcester, Mass.

Sargent & Co., 151 Leonard St., N. Y.

#### **Nails, Saddle and Lining—**

Grand Crossing Tack Co., Grand Crossing, Ill.

#### **Nails, Sheathing and Roofing—**

Garry Iron & Steel Co., Cleveland, O.

Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

**Nails, Shoe, Cobblers', Channel, &c.**

Globe Mfg. Co., Taunton, Mass.  
Grand Crossing Tack Co., Grand Crossing, Ill.

H. J. Miller's Sons, Bridgewater, Mass.  
E. Phillips & Sons, South Hanover, Mass.  
Ripley & Bartlett, Plymouth, Mass.  
Shelton Co., Derby, Ct.

**Nails, Upholsterers'—**

Parker Wire Goods Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.

**Nails, Wagon Hinge, &c.—**

Grand Crossing Tack Co., Grand Crossing, Ill.

Hay-Budden Mfg. Co., Brooklyn, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.

**Nails, Wire—**

American Screw Co., Providence, R. I.  
Crawfordsville Wire & Nail Co., Crawfordsville, Ind.

Globe Mfg. Co., Taunton, Mass.  
Grand Crossing Tack Co., Grand Crossing, Ill.

Lawrence Bros., Sterling, Ill.  
Ludlow-Saylor Wire Co., St. Louis, Mo.

H. J. Miller's Sons, Bridgewater, Mass.  
Morgan Spring Co., Worcester, Mass.

New Process Steel & Wire Co., East St. Louis, Ill.

Parker Wire Goods Co., Worcester, Mass.  
Pittsburgh Steel Co., Pittsburgh, Pa.

Reading Screw Co., Norristown, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

E. H. Titchener & Co., Binghamton, N. Y.  
C. C. & E. P. Townsend, New Brighton, Pa.

Wickwire Bros., Cortland, N. Y.  
Wire Goods Co., Worcester, Mass.

**Nails, Yellow Metal—**

(See Sheathing Nails, &c., Yellow Metal.)

**Name Plates—**

(See Plates, Name.)

**Napkin Rings—**

(See Rings, Napkin, Silver Plated.)

**Natural Gas Burners—**

(See Burners, Natural Gas.)

**Natural Gas Pumps—**

(See Pumps, Natural Gas.)

**Navy and Army Scales—**

(See Scales, Army and Navy.)

**Neck Yoke Centers, Neck Yokes—**

(See Centers, Yokes.)

**Needles, Glove, Harness, &c.—**

Shrimpton Mfg. Co., 273 Church St., New York.

**Needles, Hand Sewing, &c.—**

Shrimpton Mfg. Co., 273 Church St., New York.

**Needles, Knitting—**

Shrimpton Mfg. Co., 273 Church St., New York.

**Needles, Knitting, Machine—**

Excelsior Needle Co., Torrington, Ct.

**Needles, Mattress, Upholsterers, &c.—**

Shrimpton Mfg. Co., 273 Church St., New York.

**Needles, Sail Makers' Packing, &c.—**

Shrimpton Mfg. Co., 273 Church St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Needles, Seine, Wood—**

E. B. Estes & Sons, 45-47 John St., N. Y.

**Needles, Sewing Machine—**

Excelsior Needle Co., Torrington, Ct.  
Shrimpton Mfg. Co., 273 Church St., New York.

**Needles, Speying—**

Shrimpton Mfg. Co., 273 Church St., New York.

**Needles, Wax Thread—**

Excelsior Needle Co., Torrington, Ct.

**Needle Wire—**

(See Wire, Needle.)

**Nests, Hens', &c.—**

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Wickwire Bros., Cortland, N. Y.

**Nets, Bicycle, Dress Guard—**

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Nets, Fishing—**

Geo. B. Carpenter & Co., 15 Fifth Ave., Chicago, Ill.

**Nets, Fish Landing—**

Clark, Horrocks Co., Utica, N. Y.

**Nets, Scoop—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Nets, Scoop, Ice—**

(See Ice Harvesting Tools.)

**Netting, Minnow—**

I. E. Palmer, Middletown, Ct.

**Nettings, Canopy—**

I. E. Palmer, Middletown, Ct.

**Nettings, Horse Fly—**

I. E. Palmer, Middletown, Ct.

**Nettings, Mosquito—**

I. E. Palmer, Middletown, Ct.

**Netting, Wire—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Clinton Wire Cloth Co., Clinton, Mass.

Crawfordsville Wire & Nail Co., Crawfordsville, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

New Jersey Wire Cloth Co., Trenton, N. J.

W. S. Tyler Co., Cleveland, O.

Wickwire Brothers, Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

(See also Fencing, Poultry.)

**Nickel—**

American Metal Co., 52 Broadway, N. Y.

Hermann Boker & Co., 101-103 Duane St., New York.

Hanson & Van Winkle Co., Newark, N. J.

Orford Copper Co., 43 Exchange Pl., N. Y.

Waite, Ranlet & Co., Boston, Mass.

**Nickel Alloys—**

(See Alloys, Nickel.)

**Nickel, Electro Plated—**

(See Plating, Electro, Nickel, &c.)

**Nickel Plating—**

(See Plating, Nickel.)

**Nickeline—**

Hermann Boker & Co., 101 Duane St., New York.

**Nickelized Sheet Zinc—**  
American Nickeloid & Mfg. Co., Peru, Ill.

**Night Latches—**  
(See Latches, Night.)

**Nippers, Bicycle—**  
Scovill Mfg. Co., Waterbury, Ct.  
Utica Drop Forge & Tool Co., Utica, N. Y.

**Nippers, End Cutting—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.  
Heller Brothers Co., Newark, N. J.  
Charles Morrill, 277 Broadway, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Louis Sacks Iron Foundry, Newark, N. J.  
Otis A. Smith, Rockfall, Ct.  
L. B. Starrett Co., Athol, Mass.  
Utica Drop Forge & Tool Co., Utica, N. Y.

Wiebusch & Hilger, 9-15 Murray St., N. Y.  
A. C. Williams, Ravenna, O.

**Nipple Blank Machines, Bicycle—**  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Nipple Holders, Wrenches—**  
(See Holders, Wrenches.)

**Nipples, Bicycle and Automobile—**  
Excelsior Needle Co., Torrington, Ct.  
E. J. Manville Machine Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

**Notary Seals—**  
(See Seals, Notary, &c.)

**Notching Machines, Armature Disk—**

E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Long & Alstatter Co., Hamilton, O.  
George A. Ohl & Co., Newark, N. J.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Nozzles, Blast—**  
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

**Nozzles, Hose—**  
Barnes Mfg. Co., Mansfield, O.  
Crane Co., Chicago, Ill.  
Deming Co., Salem, O.  
F. E. Myers & Bro., Ashland, O.  
Pedrick & Ayer Co., 87 Liberty St., N. Y.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Pullman Mfg. Co., Rochester, N. Y.

**Nozzles, Ladle—**  
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

R. B. Seidel, Inc., 1334 Callowhill St., Philadelphia, Pa.

**Nozzles, Oil—**  
American Tube & Stamping Co., Bridgeport, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

**Numbers, Automobile—**  
Metal Stamping Co., Niagara Falls, N. Y.

**Numbers, House—**  
(See Letters and Figures, House.)

**Nut and Bolt Machinery—**  
(See Bolt and Nut Machinery.)

**Nut Crackers, Picks—**  
(See Crackers, Picks.)

**Nut Keys—**  
(See Keys, Nail, Bolt, Nut, &c.)

**Nutmeg Grates—**  
(See Grates, Nutmeg.)

**Nuts, Cap and Brass—**  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
Steward & Romaine Mfg. Co., Philadelphia, Pa.

**Nuts, Coupling—**  
Samuel Hall's Sons, 229-233 W. 10th St., New York.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Nuts, Knurled—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
Pratt & Whitney Co., Hartford, Ct.  
Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

**Nuts, Large Forged—**  
Fort Pitt Forge Co., Pittsburgh, Pa.

**Nuts, Lock—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
American Lock Nut Co., Oregon, Ill.  
American Valve & Meter Co., Cincinnati, O.

Cincinnati Screw & Tap Co., Cincinnati.  
Samuel Hall's Sons, 229-233 W. 10th St., New York.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Nuts, Pipe, Sleeve—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Nuts, Self Locking—**  
National Elastic Nut Co., Milwaukee, Wis.

**Nuts, Square and Hexagon—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Atlas Car & Mfg. Co., Cleveland, O.  
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati.  
Clark Bros. Bolt Co., Middale, Ct.

Eastern Bolt & Nut Co., Providence, R. I.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Sam'l Hall's Sons, 229-233 West 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

M. Lanz & Sons, Pittsburgh, Pa.

Thomas A. Mack Mfg. Co., Jersey City, N. J.

Milton Mfg. Co., Milton, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Niagara Screw Co., Buffalo, N. Y.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

Rhode Island Tool Co., Providence, R. I.

Rockford Bolt Works, Rockford, Ill.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Springfield Machine Screw Co., Springfield, Mass.

Upson Nut Co., Cleveland, O.

Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

Wilson & Smith, Worcester, Mass.

**Nuts, Thumb—**

Chas. H. Besly & Co., 10-12 No. Canal St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

R. H. Brown & Co., New Haven, Ct.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati.

Eastern Bolt & Nut Co., Providence, R. I.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

Keystone Drop Forge Works, Chester, Pa.

Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.

Republic Iron & Steel Co., Chicago, Ill.

Rockford Bolt Works, Rockford, Ill.

Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

J. H. Williams & Co., Brooklyn, N. Y.

**Nut Tapping Machines—**

(See Burring Machines, Facing Machines, Tapping Machines.)

**Oakum—**

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

**Oat Meal Machinery—**

Case Mfg. Co., Columbus, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Odometers—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

Veeder Mfg. Co., Hartford, Ct.

**Office Wire—**

(See Wires, Electrical.)

**Oil and Molasses Gates—**

(See Gates, Oil and Molasses.)

**Oil, Asphaltum—**

Gulf Refining Co., Pittsburgh, Pa.

**Oil Cans, &c.—**

(See Cans, &c.)

**Oil Cloth, Paper Hangers' &c., Knives—**

(See Knives, Paper Hangers', Oil Cloth, &c.)

**Oil, Core—**

New Era Mfg. Co., Kalamazoo, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

**Oil Drills—**

(See Drills, Oil.)

**Oil, Dustless—**

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

**Oil Equipment, Fuel—**

(See Fuel Oil Equipment.)

**Oilier Nozzles—**

(See Nozzles, Oilier.)

**Oilers, Bicycle—**

Bay State Stamping Co., Worcester, Mass.

Scovill Mfg. Co., Waterbury, Ct.

**Oilers, Car Wheel, Machinery, &c.—**

Ironside Co., Columbus, O.

**Oilers, Engineers'—**

American Tube & Stamping Co., Bridgeport, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

**Oilers, Loose Pulley—**

Gem Mfg. Co., Pittsburgh, Pa.

Lunkenheimer Co., Cincinnati, O.

Vandergrift Coupling Co., Evansville, Ind.

E. W. Vanduzen Co., Cincinnati, O.

**Oilers, Shafting—**

American Tube & Stamping Co., Bridgeport, Ct.

Chas. H. Besly & Co., 10-12 N. Canal St., Chicago, Ill.

Lunkenheimer Co., Cincinnati, O.

Scovill Mfg. Co., Waterbury, Ct.

**Oilers, Spring—**

American Tube & Stamping Co., Bridgeport, Ct.

Bridgeport Brass Co., Bridgeport, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

Hammer & Co., Branford, Ct.

Scovill Mfg. Co., Waterbury, Ct.

Sidney Shepard & Co., Buffalo, N. Y.

Tower & Lyon Co., 95 Chambers St., New York.

**Oil, Fuel—**

Gulf Refining Co., Pittsburgh, Pa.

**Oil, Lubricating—**

Chas. H. Besly & Co., 10-12 No. Canal St., Chicago, Ill.

Geo. E. Gay, Augusta, Me.

Gulf Refining Co., Pittsburgh, Pa.

**Oil Refining Machinery—**

Struthers, Wells & Co., Warren, Pa.

**Oils, Artists'—**

Devos & Reynolds Co., 176 Randolph St., Chicago, Ill.

**Oil Stone Holders—**

(See Holders, Oil Stone.)

**Oil Wells, Machinery for Pumping—**

(See Pumping Oil Wells, Machinery for.)

**Oil Well Supplies and Tools—**

(See Well Supplies and Tools.)

**Old Material—**

(See Material, Old.)

**Openers, Box—**

Arcade Mfg. Co., Freeport, Ill.

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Fanner Mfg. Co., Cleveland, O.

Kilborn & Bishop Co., New Haven, Ct.

**Openers, Can—**

American Cutlery Co., Chicago, Ill.

W. L. Barrett, Bristol, Ct.

J. F. Bigelow Mfg. Co., Worcester, Mass.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Goodell Co., Antrim, N. H.

John H. Graham & Co., 113 Chambers St., New York.

Fred J. Meyers Mfg. Co., Hamilton, O.

New England Specialty Co., North Easton, Mass.

L. D. Parkhurst, Danielson, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Smith & Hemenway Co., 224 Broadway, New York.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
 United States Gutta Percha Paint Co., Providence, R. I.

#### Paints, Paste—

John Briggs & Co., Boston, Mass.  
 Wm. Connors Paint Mfg. Co., Troy, N. Y.  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.  
 Garry Iron & Steel Co., Cleveland, O.  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
 Wadsworth-Howland Co., Indiana Ave. & 13th St., Chicago, Ill.

#### Paints, Pole—

Ironsides Co., Columbus, O.

#### Paints, Preservative—

Ironsides Co., Columbus, O.

#### Paints, Ready Mixed—

John Briggs & Co., Boston, Mass.  
 Wm. Connors Paint Mfg. Co., Troy, N. Y.  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.  
 Garry Iron & Steel Co., Cleveland, O.  
 John Lucas Co., Race and 4th Sts., Philadelphia, Pa.  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
 United States Gutta Percha Paint Co., Providence, R. I.  
 Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

#### Paints, Roof—

Asphalt Ready Roofing Co., 136 Water St., New York.  
 Wm. Connors Paint Mfg. Co., Troy, N. Y.  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.  
 Garry Iron & Steel Co., Cleveland, O.  
 Ironsides Co., Columbus, O.  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
 Standard Paint Co., 100 William St., N. Y.  
 Stowell Mfg. Co., Jersey City, N. J.  
 United States Gutta Percha Paint Co., Providence, R. I.  
 Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

#### Paints, Structural—

Asphalt Ready Roofing Co., 136 Water St., New York.  
 Cleveland Stone Co., Cleveland, O.  
 Wm. Connors Paint Mfg. Co., Troy, N. Y.  
 Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.  
 Jos. Dixon Crucible Co., Jersey City, N. J.  
 Garry Iron & Steel Co., Cleveland, O.  
 Ironsides Co., Columbus, O.  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.  
 Standard Paint Co., 100 William St., N. Y.  
 United States Gutta Percha Paint Co., Providence, R. I.  
 Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

#### Paints, Water Proof—

United States Gutta Percha Paint Co., Providence, R. I.

#### Paints, Yacht—

Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

#### Paints, Sailors' and Sail Makers—

W. & J. Tiebout, 118 Chambers St., N. Y.  
 Union Hardware Co., Torrington, Ct.

#### Panel Saws—

(See Saws, Hand, Panel, Back, &c.)

#### Pans, Acid—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

#### Pans, Annealing, Lead—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Pans, Annealing, Steel—

Cleveland Wire Spring Co., Cleveland, O.

#### Pans, Bread—

Bronson-Walton Co., Cleveland, O.

#### Pans, Cake—

North Bros. Mfg. Co., Philadelphia, Pa.

#### Pans, Candy—

John Chatillon & Sons, 85 Cliff St., N. Y.

#### Pans, Charging—

W. J. Clark Co., Salem, O.  
 Wm. B. Pollock Co., Youngstown, O.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

#### Pans, Clay Mixing and Ore—

Thos. Carlin's Sons, Allegheny, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

#### Pans, Conveyer—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Pans, Cook, Hot Air—

Avery Stamping Co., Cleveland, O.  
 W. J. Clark Co., Salem, O.

#### Pans, Dipping—

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

#### Pans, Drying—

Bronson-Walton Co., Cleveland, O.  
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

#### Pans, Fry—

Sidney Shepard & Co., Buffalo, N. Y.  
 W. J. Clark Co., Salem, O.

#### Pans, Grinding—

Cleveland Wire Spring Co., Cleveland, O.  
 L. O. Koven & Bro., 50 Cliff St., N. Y.

#### Pans, Hot Air—

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Pans, Dust—

Delphos Can Co., Delphos, O.  
 Sidney Shepard & Co., Buffalo, N. Y.

#### Pans, Fry—

Avery Stamping Co., Cleveland, O.  
 New York Stamping Co., Brooklyn, N. Y.

#### Pans, Gem—

Sidney Shepard & Co., Buffalo, N. Y.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Pans, Grinding—

8. Cheney & Son, Manlius, N. Y.  
 Russell & Erwin Mfg. Co., 45-47 Chambers St., New York.

#### Pans, Hot Air—

A. C. Williams, Ravenna, O.  
 Thos. Carlin's Sons, Allegheny, Pa.

#### Pans, Medicine—

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

#### Pans, Miners' Gold—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Pans, Miners' Gold—

W. J. Clark Co., Salem, O.  
 Cleveland Wire Spring Co., Cleveland, O.

#### Pans, Miners' Gold—

Sidney Shepard & Co., Buffalo, N. Y.

**Pans, Omelet and Chafin Dish—**

New York Stamping Co., Brooklyn, N. Y.

**Pans, Refrigerator—**

Dover Stamping & Mfg. Co., Cambridge, Mass.

**Pans, Roasting and Baking—**

Bronson-Walton Co., Cleveland, O.

Sidney Shepard & Co., Buffalo, N. Y.

**Pans, Shop—**

W. J. Clark Co., Salem, O.

Cleveland Wire Spring Co., Cleveland, O.

Globe Machine & Stamping Co., Cleveland, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Pans, Vacuum—**

E. B. Badger & Sons Co., Boston, Mass.

Buffalo Forge Co., Buffalo, N. Y.

**Pantry Steps—**

(See Steps, Pantry.)

**Paper, Blue Print—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Paper Boxes, Cutting Knives, &c.—**

(See Boxes, Knives, &c.)

**Paper Box Machinery—**

National Metal Edge Box Co., 619-623 Cherry St., Philadelphia, Pa.

**Paper, Building, Sheathing—**

Samuel Cabot, Boston, Mass.

Standard Paint Co., 100 William St., N. Y.

**Paper Calendars—**

(See Calendars, Paper.)

**Paper, Card and Book Racks—**

(See Racks, Card, Book and Paper.)

**Paper Cutters—**

(See Cutters, Paper.)

**Paper, Drawing—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Paper Files—**

(See Desk Specialties.)

**Paper, Fireproofing—**

Samuel Cabot, Boston, Mass.

**Paper Hankers' Knives, Shears—**

(See Knives, Shears)

**Paper, Insulating—**

Samuel Cabot, Boston, Mass.

Standard Paint Co., 100 William St., N. Y.

**Paper, Micrometers for—**

(See Micrometers, Paper.)

**Paper Mill Machinery—**

Standard Machinery Co., Providence, R. I.

**Paper, Sand, Garnet, &c.—**

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.

**Papers, Ferro Prussiate—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Paper Shells, Weights—**

(See Shells, Weights.)

**Paper, Sound Deadening—**

Samuel Cabot, Boston, Mass.

**Papers, Photoprinting—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Papers, Profile—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Paper Stock, Asbestos—**

American Asbestos Co., Terre Haute, Ind.

**Parallel Clamps, Rules, Vises—**

(See Clamps, Rules, Vises.)

**Parers, Apple and Potato—**

Hoerle Mfg. Co., Pittsburgh, Pa.

Goodell Co., Antrim, N. H.

Livingston Nail Co., 194 Reade St., N. Y.

Parker Wire Goods Co., Worcester, Mass.

Reading Hardware Co., Reading, Pa.

**Parers, Hoof—**

(See Knives, Farrier.)

**Park Fountains—**

(See Fountains, Park, Lawn, &c.)

**Parting Tools—**

(See Tools, Parting.)

**Partitions, Metal—**

Garry Iron & Steel Co., Cleveland, O.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

**Paste, Label—**

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

**Paste, Razor—**

A. L. Silberstein, 459-461 Broadway, N. Y.

**Patch Bolts—**

(See Bolts, Boiler, Patch.)

**Patent Attorneys—**

Howson & Howson, 32 So. Broad St., Philadelphia, Pa.

E. B. Stocking, Washington, D. C.

Straley, Hasbrouck & Schroeder, 257 Broadway, New York.

**Pattern Letters—**

(See Letters, Pattern.)

**Pattern Makers' Dowels—**

(See Dowels, Pattern Makers.)

**Pattern Makers' Machinery—**

American Machinery Co., Grand Rapids, Mich.

Baker Bros., Toledo, O.

Box Machine Co., Grand Rapids, Mich.

Greaves, Klusman & Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.

Wellman-Seaver-Morgan Co., Cleveland, O.

S. A. Woods Machine Co., South Boston, Mass.

**MERCHANTS.**

Hill, Clarke & Co., Boston, Mass.

Wickes Bros., Saginaw, Mich.

**Pattern Making—**

Baker Bros., Toledo, O.

Barry & Zecher, Lancaster, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Blake & Johnson, Waterbury, Ct.

Buhl Malleable Co., Detroit, Mich.

Canton Foundry & Machine Co., Canton, O.

Case Mfg. Co., Columbus, O.

S. Cheney & Son, Manlius, N. Y.

John W. Clark, Albany, N. Y.

Cleveland Punch & Shear Works Co., Cleveland, O.

Colonial Foundry & Machinery Co., So. Norwalk, Ct.

Donovan Wire & Iron Co., Toledo, O.

Charles F. Elmes Engineering Works, Morgan and Fulton Sts., Chicago, Ill.

Eynon-Evans Mfg. Co., 1507 Clearfield, St., Philadelphia, Pa.

Forest City Foundry & Mfg. Co., Cleveland, O.

Garry Iron & Steel Co., Cleveland, O.

Harmon-Cogger Co., Bloomburg, Pa.

Hoerle Mfg. Co., Pittsburgh, Pa.

R. E. Kidder, Worcester, Mass.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

Penn Pattern Works, Chester, Pa.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

Ira B. Smith, Bristol, Ct.  
Smith & Caffrey, Syracuse, N. Y.  
Storer Mfg. Co., Freeport, Ill.  
Susquehanna Castings Co., Wrightsville, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.  
York Pattern Works, York, Pa.

**Pattern Making, Metal—**  
Acme Steel & Malleable Iron Works, Buffalo, N. Y.

Barry & Zecher, Lancaster, Pa.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Blake & Johnson, Waterbury, Ct.  
Columbia Grey Iron Co., Columbia, Pa.  
Grant Mfg. & Machine Co., Bridgeport, Ct.

Hoerle Mfg. Co., Pittsburgh, Pa.  
R. E. Kidder, Worcester, Mass.  
Palmer & DeMooy Foundry Co., Cleveland, O.

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

Schwerdtle Stamp Co., Bridgeport, Ct.  
Storer Mfg. Co., Freeport, Ill.  
Susquehanna Castings Co., Wrightsville, Pa.

York Pattern Works, York, Pa.

**Paulins—**  
Geo. B. Carpenter & Co., 15 Fifth Ave., Chicago, Ill.

**Paving Hammers—**  
(See Hammers, Paving.)

**Paving Materials—**  
Asphalt Ready Roofing Co., 136 Water St., New York.

**Pawls, Ratchet—**  
Boston Gear Works, Boston, Mass.

**Peavies—**  
Peter Gerlach Co., Cleveland, O.  
Morley Bros., Saginaw, Mich.

**Pedal Machines, Bicycle—**  
Garvin Machine Co., Spring & Varick Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

**Pedals, Bicycle—**  
Bay State Stamping Co., Worcester, Mass.

Federal Mfg. Co., Cleveland, O.

**Peg Awls—**  
(See Awls, Peg.)

**Pencil Attachments, Divider—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Tower & Lyon Co., 95 Chambers St., New York.

**Pencils, Lead—**  
Jos. Dixon Crucible Co., Jersey City, N. J.  
Keuffel & Esser Co., 127 Fulton St., N. Y.

**Penstocks—**  
American Valve & Meter Co., Cincinnati, O.

E. Keeler Co., Williamsport, Pa.  
Wm. B. Pollock Co., Youngstown, O.  
**Pole Engineering & Machine Co., Baltimore, Md.**

Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Struthers, Wells & Co., Warren, Pa.  
Wickes Bros., Saginaw, Mich.

**Pen Wipers—**  
(See Desk Specialties, Silver Plated.)

**Penners and Salts, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Percolators, Coffee—**  
Pelouze Scale & Mfg. Co., 118-132 W. Jackson Boulevard, Chicago, Ill.

**Percussion Caps—**  
(See Caps, Percussion.)

**Perforated Brass, Metal—**  
(See Brass, Metal.)

**Perforating Machines—**  
E. W. Bliss Co., Brooklyn, N. Y.  
Erdle & Schenck Rochester, N. Y.  
Hilles & Jones Co., Wilmington, Del.  
R. Woodman Mfg. & Supply Co., Boston, Mass.

**Perforators, Paper—**  
Globe-Wernicke Co., Cincinnati, O.  
Tengwall File & Ledger Co., Ravenswood Sta., Chicago, Ill.

**Petroleum—**  
Gulf Refining Co., Pittsburgh, Pa.

**Pew Book Racks—**  
(See Racks, Pew Book.)

**Phosphate Rock Machinery—**

Jeffrey Mfg. Co., Columbus, O.  
Poole Engineering & Machine Co., Baltimore, Md.

**Phosphor-Bronze—**  
(See Bronze, Phosphor.)

**Phosphor-Bronze Ingots—**  
(See Ingots.)

**Phosphorizers—**  
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

**Phosphor-Tin—**  
(See Tin, Phosphor.)

**Phosphorus—**  
Crescent Phosphorizing Metal Co., Philadelphia, Pa.

**Photo Engraving—**  
(See Engraving, Photo and Wood.)

**Photographers—**  
Sprague & Hathaway Co., West Somerville, Mass.

**Photograph Frames—**  
(See Frames, Photograph, Silver Plated.)  
**Photograph Trimmers—**  
(See Trimmers, Photograph.)

**Piano and Organ Hardware—**

Blake & Johnson, Waterbury, Ct.  
New Britain Hardware Mfg. Co., New Britain, Ct.

**Piano Bellows, Lamps—**  
(See Bellows, Lamps.)

**Piano Frames—**  
Henry Perkins Co., Bridgewater, Mass.

**Pickers, Flower and Fruit—**  
Acme Shear Co., Bridgeport, Ct.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Parker Wire Goods Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.

**Picket Chains—**  
(See Chains, Picket.)

**Picket Machines, Wire**

Elliott & Reid Co., Richmond, Ind.

**Pickets, Iron—**

John W. Clark, Albany, N. Y.  
Chas. G. Eckstein, 249 Centre St., N. Y.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Pickle Casters—**

(See Casters, Silver Plated.)

**Pickling Machines—**

Mesta Machine Co., Pittsburgh, Pa.

**Picks and Awls, Ice—**

Araide Mfg. Co., Freeport, Ill.  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
Erie Specialty Co., Erie, Pa.  
Fanner Mfg. Co., Cleveland, O.  
Federal Mfg. Co., Cleveland, O.  
Hurwood Mfg. Co., Bridgeport, Ct.  
Landers, Frary & Clark, New Britain, Ct.  
H. E. Mayhew Co., Shelburne Falls, Mass.

Peck Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Smith & Hemenway Co., 296 Broadway, New York.

Snell Mfg. Co., Fiskdale, Mass.

Stover Mfg. Co., Freeport, Ill.

Tuck Mfg. Co., Brockton, Mass.

A. C. Williams, Ravenna, O.

**Picks and Mattocks—**

Wiebusch & Hilger, 9-15 Murray St., N. Y.  
Wrightsville Hardware Co., Wrightsville, Pa.

**MERCHANTS**

Jos. F. McCoy Co., 187 Chambers St., New York.

**Picks, Coal—**

American Brake Shoe & Foundry Co., Mahwah, N. J.

**Picks, Nut—**

American Cutlery Co., Chicago, Ill.  
Federal Mfg. Co., Cleveland, O.  
International Silver Co., 9-15 Maiden Lane, New York.

Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.

**Picture Chains, Cord,**

**Knobs, Nails—**  
(See Chains, Cord, Knobs, Nails.)

**Pie Racks, Tins—**

(See Racks, Bakery, Tins.)

**Pig Iron Breakers—**

(See Breakers, Pig Iron.)

**Pile Drivers—**

(See Drivers, Pile.)

**Pillow Blocks—**

(See Blocks, Pillow.)

**Pincers—**

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Heller Bros. Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Louis Sacks Iron Foundry, Newark, N. J.

Sargent & Co., 151 Leonard St., N. Y.

A. C. Williams, Ravenna, O.

**Pinch Bars—**

(See Pushers, Car.)

**Pinion Cutters Automatic—**

American Watch Tool Co., Waltham, Mass.

Dwight Slate Machine Co., Hartford, Ct.

**Pinions, Roll—**

A. Garrison Foundry Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.

Seaman-Sleeth Co., Pittsburgh, Pa.

**Pin Machinery—**

Blake & Johnson, Waterbury, Ct.

**Pin Machines, Safety—**

Baird Machine Co., Oakville, Ct.

Blake & Johnson, Waterbury, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

Waterbury Machine Co., Waterbury, Ct.

**Pins and Links, Car Coupling—**

(See Links and Pins, Car Coupling.)

**Pins, Belaying—**

Boston & Lockport Block Co., Boston.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Pins, Brake—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

**Pins, Carpet—**

Atlantic Machine Screw Co., Boston, Mass.

**Pins, Clothes—**

Demeritt & Palmer Packing Co., Waterbury, Vt.

Richmond Cedar Works, Richmond, Va.

United States Clothes Pin Co., Montpelier, Vt.

**Pins, Crank—**

Bethlehem Steel Co., So. Bethlehem, Pa.

Tindell-Morris Co., Eddystone, Pa.

**Pins, Curtain—**

Sargent & Co., 151 Leonard St., N. Y.

**Pins, Dowel—**

Atlas Car & Mfg. Co., Cleveland, O.

Grand Crossing Tack Co., Grand Crossing, Ill.

Thomas A. Mack Mfg. Co., Jersey City, N. J.

Parker Wire Goods Co., Worcester, Mass.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Pittsburgh Steel Co., Pittsburgh, Pa.

Progressive Mfg. Co., Torrington, Ct.

E. H. Titchener & Co., Binghamton, N. Y.

**Wire Goods Co., Worcester, Mass.**

**Pins, Drawing—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Pins, Esentecheon, Brass and Iron—**

Blake & Johnson, Waterbury, Ct.

Bridgeport Brass Co., Bridgeport, Ct.

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

R. C. Jenkinson & Co., Newark, N. J.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Plymouth Mills, Plymouth, Mass.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Scovill Mfg. Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

**Pins, Hair—**

Blake & Johnson, Waterbury, Ct.

**Pins, Household, &c.—**  
Shrimpton Mfg. Co., 273 Church St., New York.



- Pins, Knuckle**—  
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Pins, Ox Bow**—  
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Pins, Picket**—  
Metal Stamping Co., Niagara Falls, N. Y.
- Pins, Pole**—  
(See Telegraph and Telephone Supplies.)
- Pins, Regalia**—  
Wire Goods Co., Worcester, Mass.
- Pins, Rollings**—  
Wm. E. Hartigan, Collinsville, Ct.
- Pins, Safety**—  
A. H. Nilson Machine Co., Bridgeport, Ct.
- Pins, Sash**—  
Grand Crossing Tack Co., Grand Crossing, Ill.
- Pins, Shelf**—  
W. & J. Tiebout, 118 Chambers St., N. Y.
- Pins, Shelf**—  
Hardware Supply Co., Grand Rapids, Mich.
- Pins, Shelf**—  
Reading Hardware Co., Reading, Pa.
- Pins, Shelf**—  
Russell & Erwin Mfg. Co., 45-47 Chambers St., New York.
- Pins, Shelf**—  
Sargent & Co., 151 Leonard St., N. Y.
- Pins, Shelf**—  
Wire Goods Co., Worcester, Mass.
- Pins, Taper**—  
Automatic Machine Co., Greenfield, Mass.
- Pins, Taper**—  
Cincinnati Screw & Tap Co., Cincinnati.
- Pins, Taper**—  
Etma Mfg. Co., 253 Broadway, New York.
- Pins, Taper**—  
Illinois Screw Co., 20 So. Canal St., Chicago.
- Pins, Taper**—  
Thomas A. Mack Mfg. Co., Jersey City, N. J.
- Pins, Taper**—  
Morse Twist Drill & Machine Co., New Bedford, Mass.
- Pins, Taper**—  
Pratt & Whitney Co., Hartford, Ct.
- Pins, Taper**—  
Progressive Mfg. Co., Torrington, Ct.
- Pins, Taper**—  
Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.
- Pins, Taper**—  
Worcester Machine Screw Co., Worcester, Mass.
- Pins, Ten**—  
(See Bails and Pins.)
- Pins, Thole**—  
E. B. Estes & Sons, 45-47 John St., N. Y.
- Pins, Thole**—  
Piqua Handle & Mfg. Co., Piqua, O.
- Pin Wire**—  
(See Wire, Pin.)
- Pipe Bending and Cutting**—  
Crane Co., Chicago, Ill.
- Pipe Bending and Cutting**—  
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
- Pipe Bending and Cutting**—  
National Pipe Bending Co., New Haven, Ct.
- Pipe Bending and Cutting**—  
Walworth Mfg. Co., Boston, Mass.
- Pipe Bending and Cutting**—  
Whitlock Coil Pipe Co., Hartford, Ct.
- Pipe Bending Machines**—  
Standard Engineering Co., Ellwood City, Pa.
- Pipe, Brass and Copper**—  
(See Tubing, Brass and Copper.)
- Pipe Brushes**—  
S. Obermayer Co., Cincinnati, O.
- Pipe, Cast Iron**—  
Dimmick Pipe Co., Birmingham, Ala.
- Pipe, Cast Iron**—  
Chas. Millar & Son Co., Utica, N. Y.
- Pipe, Cast Iron**—  
Nasareth Foundry & Machine Co., Nazareth, Pa.
- Pleuger & Henger Mfg. Co.**, St. Louis, Mo.
- Virginia Iron, Coal & Coke Co.**, Bristol, Va.
- R. D. Wood & Co.**, 400 Chestnut St., Philadelphia, Pa.
- MERCHANTS**  
Brown-Wales Co., Boston, Mass.
- Charles G. Shepard**, Buffalo, N. Y.
- Pipe Coils, Cutters, &c.**—  
(See Coils, Cutters, &c.)
- Pipe, Conductor**—  
(See Conductors, Pipe.)
- Pipe Cross Rolls**—  
Taylor, Wilson & Co., Ltd., Allegheny, Pa.
- Pipe Cutting and Threading Machines**—  
Acme Machinery Co., Cleveland, O.
- Armstrong Mfg. Co.**, Bridgeport, Ct.
- Signal & Keeler Mfg. Co.**, Edwardsville, Ill.
- Curtis & Curtis Co.**, Bridgeport, Ct.
- Detrick & Harvey Machine Co.**, Baltimore, Md.
- Fairbanks Co.**, 416 Broome St., New York.
- For Machine Co.**, Grand Rapids, Mich.
- Jarecki Mfg. Co.**, Erie, Pa.
- Merrell Mfg. Co.**, Toledo, O.
- P. Hollingsworth Morris**, 1501 So. Front St., Philadelphia, Pa.
- Niles-Bement-Pond Co.**, 136-138 Liberty St., New York.
- Reliance Mach. & Tool Co.**, Cleveland, O.
- D. Saunders' Sons**, Yonkers, N. Y.
- Standard Engineering Co.**, Ellwood City, Pa.
- Taylor, Wilson & Co., Ltd.**, Allegheny, Pa.
- Wiley & Russell Mfg. Co.**, Greenfield, Mass.
- MERCHANTS**  
George E. Affleck, 107 Liberty St., N. Y.
- Hill, Clarke & Co.**, Boston, Mass.
- McDowell & Co.**, Pittsburgh, Pa.
- Prentiss Tool & Supply Co.**, 115 Liberty St., New York.
- Wickes Bros.**, Saginaw, Mich.
- Pipe, Doubled Refined Puddled Iron**—  
Youngstown Iron Sheet & Tube Co., Youngstown, O.
- Pipe, Galvanized**—  
Youngstown Iron Sheet & Tube Co., Youngstown, O.
- Pipe, Galvanized Riveted**—  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Stirling Blower & Pipe Mfg. Co.**, Hartford, Ct.
- B. F. Sturtevant Co.**, Boston, Mass.
- Pipe Hanger Tongs**—  
(See Tongs, Pipe Hanger.)
- Pipe Hook Plates, Steel**—  
(See Plates, Pipe Hook, Steel.)
- Pipe, Lead**—  
Chas. Millar & Son Co., Utica, N. Y.
- Pipe, Merchant**—  
Crane Co., Chicago, Ill.
- Harrisburg Pipe & Pipe Bending Co.**, Harrisburg, Pa.
- La Belle Iron Works**, Steubenville, O.
- National Tube Co.**, Pittsburgh, Pa.
- Pittsburgh Valve, Foundry & Construction Co.**, Pittsburgh, Pa.

Youngstown Iron Sheet & Tube Co.,  
Youngstown, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
C. B. Houston & Co., Girard Bldg.,  
Philadelphia, Pa.  
McDowell & Co., Pittsburgh, Pa.  
John B. Newkirk & Co., Harrison Bldg.,  
Philadelphia, Pa.  
Pittsburgh Pipe & Iron Co., Allegheny,  
Pa.  
Fra. Samuel, 15th and Market Sta.,  
Philadelphia, Pa.  
Shook & Fletcher, Birmingham, Ala.  
Whitehead Machinery Co., Davenport, Ia.  
Wickes Bros., Saginaw, Mich.  
Mason G. Worth & Co., Real Estate  
Trust Bldg., Philadelphia, Pa.

**Pipe Mill Machinery—**

Tyrone Foundry & Machine Co., Tyrone,  
Pa.

**Pipe, Oil Well—**

La Belle Iron Works, Steubenville, O.

**Pipe Plants, Riveted—**

Hilles & Jones Co., Wilmington, Del.  
Wm. B. Scaife & Sons Co., Pittsburgh.

**Pipe Polishing Machines—**

Standard Engineering Co., Ellwood City,  
Pa.

**Pipe, Riveted Steel Spiral—**

American Spiral Pipe Works, 1173-1201 S.  
Paulina St., Chicago, Ill.  
E. Keeler Co., Williamsport, Pa.  
L. O. Koven & Bro., 50 Cliff St., N. Y.  
Meehan Boiler & Construction Co., Low-  
ellville, O.  
Pennsylvania Engineering Works, New  
Castle, Pa.

W. B. Pollock Co., Youngstown, O.  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh.  
Stirling Blower & Pipe Mfg. Co., Hart-  
ford, Ct.  
Tudor Boiler Mfg. Co., Cincinnati, O.

**Pipes, Blow—**

Braunsdorf-Mueller Co., Elizabeth, N. J.  
Penn Engineering Works, New Castle, Pa.  
White Mfg. Co., 33 Michigan Ave., Chi-  
cago, Ill.

**Pipes, Chain—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Pipe, Sewer—**

Chas. Millar & Son Co., Utica, N. Y.

**Pipes, Flush and Supply—**

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Randolph-Clowes Co., Waterbury, Ct.

**Pipe Sleeve Nuts—**

(See Nuts, Pipe Sleeve.)

**Pipe Socket Reaming Ma-  
chines—**

Taylor, Wilson & Co., Ltd., Allegheny,  
Pa.

**Pipe Socket Tapping Ma-  
chines—**

Taylor, Wilson & Co., Ltd., Allegheny,  
Pa.

**Pipe, Steel—**

American Spiral Pipe Works, 1173-1201 S.  
Paulina St., Chicago, Ill.  
Avery Stamping Co., Cleveland, O.

Berger Mfg. Co., Canton, O.  
W. J. Clark Co., Salem, O.  
Crane Co., Chicago, Ill.  
E. Keeler Co., Williamsport, Pa.  
National Tube Co., Pittsburgh, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh.  
Youngstown Iron Sheet & Tube Co.,  
Youngstown, O.

**MERCHANTS.**

Brown-Wales Co., Boston, Mass.  
Bourne-Fuller Co., Cleveland, O.  
Shook & Fletcher, Birmingham, Ala.  
Whitehead Machinery Co., Davenport, Ia.  
Wickes Bros., Saginaw, Mich.

**Pipe, Steel—**

Canton Steel Roofing Co., Canton, O.  
Edwards Mfg. Co., Cincinnati, O.  
Garry Iron & Steel Co., Cleveland, O.  
Chattanooga Roofing & Foundry Co.,  
Chattanooga, Tenn.  
S. M. Howes Co., Boston, Mass.

**Pipe Straightening Ma-  
chines—**

(See Straightening Machines, Pipe.)

**Pipe Strainers, Conductor—**

(See Strainers, Conductor Pipe.)

**Pipe Testing Machines—**

(See Testing Presses, Pipe.)

**Pipe Unions—**

(See Unions, Pipe.)

**Pipe Wrenches, Adjustable**

(See Wrenches, Adjustable S Pipe.)

**Pipe, Wrought Iron—**

(See Pipe, Merchant.)

**Piping Work, Galvanized—**

Stirling Blower & Pipe Mfg. Co., Hart-  
ford, Ct.

B. F. Sturtevant Co., Boston, Mass.

**Pistol Pockets, Rubber—**

(See Pockets, Pistol, Rubber.)

**Pistols and Revolvers—**

Ames Sword Co., Chicopee, Mass.  
Harrington & Richardson Arms Co.,  
Worcester, Mass.  
Hopkins & Allen Arms Co., Norwich, Ct.  
Iver Johnson's Arms & Cycle Works,  
Fitchburg, Mass.  
Marlin Fire Arms Co., New Haven, Ct.  
Remington Arms Co., 313 Broadway, N. Y.  
Otis A. Smith, Rockfall, Ct.  
J. Stevens Arms & Tool Co., Chicopee  
Falls, Mass.

**Pistols, Liquid—**

Parker, Stearns & Sutton, 230 South St.,  
New York.

**Piston Packing, Rings.**

**Rods—**

(See Packing, Rings, Rods.)

**Pitchers, Beer, Wine, Syrup.**

**&c., Silver Plated—**

International Silver Co., 9-13 Maiden  
Lane, New York.

**Pitchers, Metal—**

Rome Mfg. Co., Rome, N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

**Pitcher Spout Pumps—**

(See Pumps, Cistern, Pitcher Spout, &c.)

**Pitching Machines, Barrel**

**and Keg—**

Pawling & Harnischfeger, Milwaukee, Wis.

**Plates, Hand Rail—**  
Sargent & Co., 151 Leonard St., N. Y.

**Plates, Heel and Sole—**  
Root Bros. Co., Plymouth, O.  
Louis Sacks Iron Foundry, Newark, N. J.

**Plates, Hinge, Corner and Center—**

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Plates, Hot—**  
Dangler Store & Mfg. Div., Am. Store Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.  
S. M. Howes Co., Boston, Mass.

Schneider & Trenkamp Div., Am. Store Co., Cleveland, O.

Taylor & Boggis Foundry Co., Cleveland.

**Plates, Hound—**  
John C. Kipfer, St. Louis, Mo.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.

**Plates, Iron and Steel—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland.  
Garry Iron & Steel Co., Cleveland, O.

Jones & Laughlin Steel Co., Pittsburgh, Pa.  
La Belle Iron Works, Steubenville, O.

Lukens Iron & Steel Co., Coatesville, Pa.  
Otis Steel Co., Ltd., Cleveland, O.

Republic Iron & Steel Co., Chicago, Ill.  
Seidel & Hastings Co., Wilmington, Del.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.

Justice Cox, Jr., & Co., Bullitt Building, Philadelphia, Pa.

John Eichleay, Jr., Co., Pittsburgh, Pa.  
J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

James Lee & Co., 76 William St., N. Y.  
Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.

Ogden & Wallace, 577 Greenwich St., New York.

Pierson & Co., 29 Broadway, N. Y.  
Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. H. Wallace & Co., 66 Broadway, New York.

Wheeler, Mifflin & Co., Philadelphia, Pa.  
Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Plates, Iron and Steel**

**Punched—**  
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

**Plates, Looking Glass—**  
Sargent & Co., 151 Leonard St., N. Y.

**Plates, Mending—**

National Mfg. Co., Sterling, Ill.

Richards Mfg. Co., Aurora, Ill.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Wilcox Mfg. Co., Aurora, Ill.

**Plates, Name—**

Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

American Railway Supply Co., 24 Park Place, New York.

Recker Name Plate Co., Boston, Mass.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Crowe Metal Mfg. Co., 71 W. Jackson Bldg., Chicago, Ill.

Metal Stamping Co., Niagara Falls, N. Y.

Murdock Corporation, Boston, Mass.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

New York Lock Co., Branford, Ct.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

Scovill Mfg. Co., Waterbury, Ct.

I. S. Spencer's Sons, Guilford, Ct.

A. V. Taylor & Co., Cincinnati, O.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

**Plates, Number—**

Metal Stamping Co., Niagara Falls, N. Y.

Sargent & Co., 151 Leonard St., N. Y.

A. V. Taylor & Co., Cincinnati, O.

**Plates, Perforated Sifter**

**and Screen—**  
Hendrick Mfg. Co., Carbondale, Pa.

**Plates, Pipe Hook, Steel—**  
Avery Stamping Co., Cleveland, O.

**Plates, Push, Pull and**

**Kick—**  
Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Glen Mfg. Co., Ellwood City, Pa.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Shelby Spring Hinge Co., Shelby, O.

Stover Mfg. Co., Freeport, Ill.

Taylor & Boggis Foundry Co., Cleveland.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Plates, Safe Burglar Proof—**  
Chrome Steel Works, Brooklyn, N. Y.

**Plates, Screw—**  
Charles H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Butterfield & Co., Derby Line, Vt.

S. W. Card Mfg. Co., Mansfield, Mass.

J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Champion Blower & Forge Co., Lancaster, Pa.

Crane Co., Chicago, Ill.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Wells Bros. & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Winter Bros. Co., Wrentham, Mass.

**Plates, Street Name—**  
A. V. Taylor & Co., Cincinnati, O.  
**Plates, Tire Setting, Iron—**  
Wells Bros. Co., Greenfield, Mass.  
**Plates, Tunnel—**  
Lehigh Foundry Co., Fullerton, Pa.  
Nazareth Foundry & Machine Co., Nazareth, Pa.  
**Plates, Vehicle License—**  
Metal Stamping Co., Niagara Falls, N. Y.  
**Plates, Ventilating—**  
(See Iron Work, Builders.)  
**Plates, Wagon End Gate—**  
Lawrence Bros., Sterling, Ill.  
**Plates, Wall—**  
Levering Bros., Baltimore, Md.  
**Plates, Whiffletree—**  
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.  
**Plates, Zinc—**  
Matthiesen & Hegeler Zinc Co., La Salle, Ill.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.  
**Plate, Tack—**  
La Belle Iron Works, Steubenville, O.  
**Plate, Tin and Terne—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Garry Iron & Steel Co., Cleveland, O.  
Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
Brown-Wales Co., Boston, Mass.  
Arthur C. Harvey Co., Boston, Mass.  
J. H. Hillman & Son, Pittsburgh, Pa.  
F. R. Phillips' Sons Co., Philadelphia, Pa.  
Waite, Ranlet & Co., Boston, Mass.

**Platform Scales—**  
(See Scales, Platform.)  
**Plating, Electro—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.  
Blake & Johnson, Waterbury, Ct.  
J. W. Clark, Albany, N. Y.  
Hoerle Mfg. Co., Pittsburgh, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
Murdoch Corporation, Boston, Mass.  
New Britain Hardware Mfg. Co., New Britain, Ct.  
Pleunger & Henger Mfg. Co., St. Louis, Mo.  
Reading Machine & Tool Co., Reading, Pa.  
Reading Standard Cycle Mfg. Co., Reading, Pa.  
Ira B. Smith, Bristol, Ct.  
I. S. Spencer's Sons, Guilford, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Taylor & Boggis Foundry Co., Cleveland, O.  
**Plating, Nickel—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.  
Blake & Johnson, Waterbury, Ct.  
S. Cheney & Son, Manlius, N. Y.  
J. W. Clark, Albany, N. Y.  
Ludlow-Saylor Wire Co., St. Louis, Mo.

Reading Machine & Tool Co., Reading, Pa.  
Reading Standard Cycle Mfg. Co., Reading, Pa.  
I. S. Spencer's Sons, Guilford, Ct.  
**Plating Supplies, Electro—**  
(See Electro Plating Supplies.)  
**Platinum—**  
Baker & Co., Newark, N. J.  
J. Bishop & Co., Malvern, Pa.  
Eimer & Amend, 205 3d Ave., N. Y.  
**Pliers, Aligning—**  
Tower & Lyon Co., 95 Chambers St., N. Y.  
**Pliers, Button—**  
John H. Graham & Co., 113 Chambers St., New York.  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Chain, Needle and Reamer Nose—**  
Jos. F. McCoy Co., 26 Warren St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Champagne—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Combination—**  
Athol Machine Co., Athol, Mass.  
Billings & Spencer Co., Hartford, Ct.  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
Kilborn & Bishop Co., New Haven, Ct.  
J. W. King & Co., Waterford, N. Y.  
Jos. F. McCoy Co., 26 Warren St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Tower & Lyon Co., 95 Chambers St., New York.  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Cutting—**  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Cutting, Side and Diagonal—**  
Billings & Spencer Co., Hartford, Ct.  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
John H. Graham & Co., 113 Chambers St., New York.  
Hurwood Mfg. Co., Bridgeport, Ct.  
Kilborn & Bishop Co., New Haven, Ct.  
Jos. F. McCoy Co., 26 Warren St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Otis A. Smith, Rockfall, Ct.  
Smith & Hemenway Co., 296 Broadway, New York.  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Duck Bill—**  
Jos. F. McCoy Co., 26 Warren St., N. Y.  
Utica Drop Forge & Tool Co., Utica, N. Y.  
**Pliers, Electricians—**  
Billings & Spencer Co., Hartford, Ct.  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
John H. Graham & Co., 113 Chambers St., New York.  
Kilborn & Bishop Co., New Haven, Ct.

**Pits, Soaking—**

G. W. McClure, Son & Co., Pittsburgh.  
Wm. Swindell & Bros., Pittsburgh, Pa.

**Pivots, Door—**

Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

**Pivots, Stool and Chair—**

Sargent & Co., 151 Leonard St., N. Y.

**Plane Gauges, Irons,****Handles—**

(See Gauges, Irons, Handles.)

**Plane Irons, Toy—**

(See Toy Plane Irons.)

**Planer Centers, Chucks,**

&c.—

(See Centers, Chucks, &c.)

**Planer Knife Files, Grinders—**

(See Files, Grinders.)

**Planers, Armor Plate—**

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Planers, Buzz—**

American Machinery Co., Grand Rapids, Mich.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

S. A. Woods Machine Co., So. Boston.

**MERCHANTS.**

Hill, Clarke & Co., Boston, Mass.

Wickes Bros., Saginaw, Mich.

**Planers, Electric Wood—**

Thos. H. Dallett & Co., York St. and

Sedgley Ave., Philadelphia, Pa.

**Planers, Gear—**

Gleason Works, Rochester, N. Y.

**Planers, Metal—**

American Tool Works Co., Cincinnati, O.

Belmer Machine Tool Co., Cincinnati, O.

P. Blaisdell & Co., Worcester, Mass.

Cleveland Punch & Shear Works Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore, Md.

Draper Machine Tool Co., Worcester, Mass.

Fairbanks Co., 416 Broome St., New York.

Garvin Machine Co., Spring and Varick

Sts., New York.

Gleason Works, Rochester, N. Y.

Edwin Harrington, Son & Co., Philadelphia, Pa.

Hendey Machine Co., Torrington, Ct.

Hilles & Jones Co., Wilmington, Del.

J. J. McCabe, 14 Dey St., New York.

Morton Mfg. Co., Muskegon Heights, Mich.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Pratt & Whitney Co., Hartford, Ct.

Wm. Sellers & Co. (Inc.), Philadelphia.

Whitcomb Mfg. Co., Worcester, Mass.

W. A. Wilson Machine Co., Rochester, N. Y.

**MERCHANTS.**

Geo. E. Affleck, 109 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Allegheny, Pa.

J. H. Dawson Machinery Co., 39 S. Canal

St., Chicago, Ill.

Henry F. Hill, Boston, Mass.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, 85 Liberty

St., New York.

Marshall & Hushart Machinery Co., 62-

64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal St.,

Chicago, Ill.

Northern Machinery Co., Minneapolis,

Minn.

Prentiss Tool & Supply Co., 115 Liberty

St., New York.

L. F. Seyfert's Sons, 437-441 N. 3d St.,

Philadelphia, Pa.

Frank Toomey, 127-131 No. 3d St., Phila-

delphia, Pa.

J. R. Vanduyck Co., 8 Dey St., New York.

William Ward, Pittsburgh, Pa.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit,

Mich.

**Planers, Miter—**

(See Miter Planers.)

**Planers, Open Side—**

Detrick & Harvey Machine Co., Balti-

more, Md.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

**Planers, Plate—**

Cleveland Punch & Shear Works Co.,

Cleveland, O.

Detrick & Harvey Machine Co., Balti-

more, Md.

Hilles & Jones Co., Wilmington, Del.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**Planers, Portable—**

Morton Mfg. Co., Muskegon Heights,

Mich.

**Planers, Radius Link—**

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

**Planers, Rotary—**

Becker-Brainard Milling Machine Co.,

Hyde Park, Mass.

Cleveland Punch & Shear Works Co.,

Cleveland, O.

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**Planers, Stone—**

Farrel Foundry & Mach. Co., Ansonia, Ct.

F. R. Patch Mfg. Co., Rutland, Vt.

**Planers, Valve Seat—**

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

Pedrick & Ayer Co., 85-89 Liberty St.,

New York.

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

**Planers, Wall—**

Niles-Bement-Pond Co., 136-138 Liberty St.,

New York.

**Planers, Wood—**

American Machinery Co., Grand Rapids,

Mich.

Louis E. Reichtin & Bro., Cincinnati, O.

S. A. Woods Machine Co., South Boston,

Mass.

**Planers, Ice—**

(See Ice Harvesting Tools.)

**Planes, Iron—**

Ives, Johnson's Arms & Cycle Works,  
Fitchburg, Mass.  
Ohio Tool Co., Columbus, O.  
Sargent & Co., 151 Leonard St., N. Y.  
Stanley Rule & Level Co., New Britain, Ct.  
Tower & Lyon Co., 96 Chambers St.,  
New York.

Union Mfg. Co., New Britain, Ct.

**Planes, Molding—**

Ohio Tool Co., Columbus, O.

**Plane Stops—**

Chapin-Stephens Co., Pine Meadow, Ct.

**Planes, Variable Bench—**

Otis A. Smith, Rockfall, Ct.

**Planes, Wood—**

Chapin-Stephens Co., Pine Meadow, Ct.

Ohio Tool Co., Columbus, O.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Union Mfg. Co., New Britain, Ct.

**Planimeters—**

American Steam Gauge & Valve Mfg.  
Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston.

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Planing Machines, Connecting Rod—**

Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**Planing Machines, Valve**

**Seat Rotary—**

H. B. Underwood & Co., 1025 Hamilton  
St., Philadelphia, Pa.

**Planing Mill Machinery—**

American Machinery Co., Grand Rapids,  
Mich.

Wickes Bros., Saginaw, Mich.

S. A. Woods Machine Co., South Boston,  
Mass.

**Plantation Checks—**

(See Checks, Plantation.)

**Planters and Drills, Corn—**

F. E. Kohler & Co., Canton, O.

J. E. Porter Co., Ottawa, Ill.

Warsaw Elevator Co., Warsaw, N. Y.

**Planters, Cotton—**

R. W. Whiturst Co., Norfolk, Va.

**Planters' Hoes—**

(See Hoes, Eye.)

**Planters, Potato—**

Bateman Mfg. Co., Greenloch, N. J.

**Plant Labels—**

(See Labels, Plant or Tree.)

**Plastering Trowels—**

(See Trowels, Brick, Plastering, &c.)

**Plate, Black, for Tinning—**

American Sheet & Tin Plate Co., Pitts-  
burgh, Pa.

**Plate Casters, Hinges—**

(See Casters, Hinges.)

**Plate Handlers, Wire—**

(See Household Articles, Wire.)

**Platers' Metal—**

(See Metal, Platers' or Gold.)

**Plates and Hooks, Win-**

**dow—**

Peck Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Plates and Stubs, Store**

**Shutter—**

(See Stubs and Plates, Store Shutter.)

**Plates and Wheels, Sheave—**

Mathew Lanz & Sons, Pittsburgh, Pa.

**Plates, Bolster—**

S. Cheney & Son, Manlius, N. Y.

John C. Kupferle, St. Louis, Mo.

Plunger & Henger Mfg. Co., St. Louis, Mo.

Republic Iron & Steel Co., Chicago, Ill.

Stover Mfg. Co., Freeport, Ill.

A. C. Williams, Ravenna, O.

**Plates, Brass Step—**

Donovan Wire & Iron Co., Toledo, O.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Plates, Building—**

Levering Bros., Baltimore, Md.

**Plates, Car Door—**

Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

**Plates, Centrifugal Machine**

**Perforated—**

Chas. Mundt & Sons, 441 Pearl St., N. Y.

**Plates, Charcoal Iron Boil-**

**er—**

Seidel & Hastings Co., Wilmington, Del.

**Plates, Deck or Man Hole—**

Edson Mfg. Co., Boston, Mass.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Plates, Die—**

Butterfield & Co., Derby Line, Vt.

Crane Co., Chicago, Ill.

**Plates, Door Number—**

Metal Stamping Co., Niagara Falls, N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Plates, Draw, Diamond—**

Steel Set Diamond Co., 36 Gold St., N. Y.

**Plates, Drop Letter—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Yale & Towne Mfg. Co., 9-13 Murray St.,  
New York.

**Plates, Felloe—**

Avery Stamping Co., Cleveland, O.

McKinney Mfg. Co., Allegheny, Pa.

Upon Nut Co., Cleveland, O.

Withington & Cooley Mfg. Co., Jackson,  
Mich.

Walter W. Woodruff & Sons Co., Mount  
Carmel, Ct.

Wrought Washer Mfg. Co., Milwaukee,  
Wis.

**Plates, Filter Press Perfo-**

**rated—**

Chas. Mundt & Sons, 441 Pearl St., N. Y.

**Plates, Fish—**

Republic Iron & Steel Co., Chicago, Ill.

**Plates, Floor and Ceiling—**

Bethlehem Foundry & Machine Co.,  
South Bethlehem, Pa.

Crane Co., Chicago, Ill.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Plunger & Henger Mfg. Co., St. Louis,  
Mo.

Plume & Alwood Mfg. Co., Waterbury,  
Ct.

**Plates, Hand Rail—**  
Sargent & Co., 151 Leonard St., N. Y.

**Plates, Heel and Sole—**  
Root Bros. Co., Plymouth, O.  
Louis Sacks Iron Foundry, Newark, N. J.

**Plates, Hinge, Corner and Center—**

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Plates, Hot—**  
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.  
S. M. Howes Co., Boston, Mass.  
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Taylor & Boggis Foundry Co., Cleveland.

**Plates, Hound—**  
John C. Kupferle, St. Louis, Mo.

Plunger & Henger Mfg. Co., St. Louis, Mo.

**Plates, Iron and Steel—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland.

Garry Iron & Steel Co., Cleveland, O.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

Lukens Iron & Steel Co., Coatesville, Pa.

Otis Steel Co., Ltd., Cleveland, O.

Republic Iron & Steel Co., Chicago, Ill.

Seidel & Hastings Co., Wilmington, Del.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

Justice Cox, Jr., & Co., Bullitt Building, Philadelphia, Pa.

John Eichleay, Jr., Co., Pittsburgh, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

O. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

James Lee & Co., 76 William St., N. Y.

Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.

Ogden & Wallace, 577 Greenwich St., New York.

Pierson & Co., 29 Broadway, N. Y.

Horace T. Potis & Co., 316-320 No. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. H. Wallace & Co., 66 Broadway, New York.

Wheeler, Millin & Co., Philadelphia, Pa.

Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Plates, Iron and Steel Punched—**

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

**Plates, Looking Glass—**

Sargent & Co., 151 Leonard St., N. Y.

**Plates, Mending—**

National Mfg. Co., Sterling, Ill.

Richards Mfg. Co., Aurora, Ill.

Sargent & Co., 151 Leonard St., N. Y.

Stanley Works, New Britain, Ct.

Wilcox Mfg. Co., Aurora, Ill.

**Plates, Name—**

Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

American Railway Supply Co., 24 Park Place, New York.

Becker Name Plate Co., Boston, Mass.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Crowe Metal Mfg. Co., 71 W. Jackson Blvd., Chicago, Ill.

Metal Stamping Co., Niagara Falls, N. Y.

Murdock Corporation, Boston, Mass.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

New York Lock Co., Branford, Ct.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

Scovill Mfg. Co., Waterbury, Ct.

I. S. Spencer's Sons, Guilford, Ct.

A. V. Taylor & Co., Cincinnati, O.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

**Plates, Number—**

Metal Stamping Co., Niagara Falls, N. Y.

Sargent & Co., 151 Leonard St., N. Y.

A. V. Taylor & Co., Cincinnati, O.

**Plates, Perforated Sifter and Screen—**

Hendrick Mfg. Co., Carbondale, Pa.

**Plates, Pipe Hook, Steel—**

Avery Stamping Co., Cleveland, O.

**Plates, Push, Pull and Kick—**

Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Glen Mfg. Co., Ellwood City, Pa.

McKenna Bros. Brass Co., Pittsburgh, Pa.

Plunger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Shelby Spring Hinge Co., Shelby, O.

Stover Mfg. Co., Freeport, Ill.

Taylor & Boggis Foundry Co., Cleveland.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Plates, Safe Burglar Proof—**

Chrome Steel Works, Brooklyn, N. Y.

**Plates, Screw—**

Charles H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Butterfield & Co., Derby Line, Vt.

S. W. Card Mfg. Co., Mansfield, Mass.

J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Champion Blower & Forge Co., Lancaster, Pa.

Crane Co., Chicago, Ill.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Wells Bros. & Co., Greenfield, Mass.

Wilcox & Russell Mfg. Co., Greenfield, Mass.

Winter Bros. Co., Wrentham, Mass.

**Plates, Street Name—**  
A. V. Taylor & Co., Cincinnati, O.  
**Plates, Tire Setting, Iron—**  
Wells Bros. Co., Greenfield, Mass.

**Plates, Tunnel—**  
Lehigh Foundry Co., Fullerton, Pa.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

**Plates, Vehicle License—**  
Metal Stamping Co., Niagara Falls, N. Y.

**Plates, Ventilating—**  
(See Iron Work, Builders.)

**Plates, Wagon End Gate—**  
Lawrence Bros., Sterling, Ill.

**Plates, Wall—**  
Levering Bros., Baltimore, Md.

**Plates, Whiffletree—**  
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Plates, Zinc—**  
Matthiesen & Hegeler Zinc Co., La Salle, Ill.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.

**Plate, Tack—**  
La Belle Iron Works, Steubenville, O.

**Plate, Tin and Terme—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.  
Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
Brown-Wales Co., Boston, Mass.  
Arthur C. Harvey Co., Boston, Mass.  
J. H. Hillman & Son, Pittsburgh, Pa.  
F. R. Phillips' Sons Co., Philadelphia, Pa.  
Waite, Ranlet & Co., Boston, Mass.

**Platform Scales—**  
(See Scales, Platform.)

**Plating, Electro—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

Blake & Johnson, Waterbury, Ct.  
J. W. Clark, Albany, N. Y.  
Hoerle Mfg. Co., Pittsburgh, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
Murdock Corporation, Boston, Mass.  
New Britain Hardware Mfg. Co., New Britain, Ct.

Pleunger & Henger Mfg. Co., St. Louis, Mo.  
Reading Machine & Tool Co., Reading, Pa.

Reading Standard Cycle Mfg. Co., Reading, Pa.

Ira E. Smith, Bristol, Ct.  
I. S. Spencer's Sons, Guilford, Ct.  
Stover Mfg. Co., Freeport, Ill.

Taylor & Boggs Foundry Co., Cleveland, O.

**Plating, Nickel—**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

Blake & Johnson, Waterbury, Ct.  
S. Cheney & Son, Manlius, N. Y.  
J. W. Clark, Albany, N. Y.  
Ludlow-Saylor Wire Co., St. Louis, Mo.

Reading Machine & Tool Co., Reading, Pa.

Reading Standard Cycle Mfg. Co., Reading, Pa.

I. S. Spencer's Sons, Guilford, Ct.

**Plating Supplies, Electro—**  
(See Electro Plating Supplies.)

**Platinum—**  
Baker & Co., Newark, N. J.

J. Bishop & Co., Malvern, Pa.  
Elmer & Amend, 205 3d Ave., N. Y.

**Pliers, Aligning—**  
Tower & Lyon Co., 95 Chambers St., N. Y.

**Pliers, Button's—**  
John H. Graham & Co., 113 Chambers St., New York.

Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Chain, Needle and Reamer Nose—**

Jos. F. McCoy Co., 26 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Champagne—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Combination—**  
Athol Machine Co., Athol, Mass.

Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

J. W. King & Co., Waterford, N. Y.

Jos. F. McCoy Co., 26 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Cutting—**  
Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Cutting, Side and Diagonal—**  
Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John H. Graham & Co., 113 Chambers St., New York.

Hurwood Mfg. Co., Bridgeport, Ct.

Kilborn & Bishop Co., New Haven, Ct.

Jos. F. McCoy Co., 26 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Otis A. Smith, Rockfall, Ct.

Smith & Hemenway Co., 296 Broadway, New York.

Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Duck Bill—**  
Jos. F. McCoy Co., 26 Warren St., N. Y.

Utica Drop Forge & Tool Co., Utica, N. Y.

**Pliers, Electricians—**  
Billings & Spencer Co., Hartford, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John H. Graham & Co., 113 Chambers St., New York.

Kilborn & Bishop Co., New Haven, Ct.



- Jos. F. McCoy Co., 26 Warren St., N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.
- Utica Drop Forge & Tool Co., Utica,  
 N. Y.**
- Pliers, Farmers'—**  
 Kilborn & Bishop Co., New Haven, Ct.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Fencing—**  
 Bridgeport Hardware Mfg. Co., Bridge-  
 port, Ct.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Flat and Round  
 Nose—**  
 Billings & Spencer Co., Hartford, Ct.  
 Bridgeport Hardware Mfg. Co., Bridge-  
 port, Ct.  
 Cronk & Carrier Mfg. Co., Elmira, N. Y.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Jos. F. McCoy Co., 26 Warren St., N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.  
 Tower & Lyon Co., 95 Chambers St.,  
 New York.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Gas Burner and  
 Pipe—**  
 Billings & Spencer Co., Hartford, Ct.  
 Bridgeport Hardware Mfg. Co., Bridge-  
 port, Ct.  
 Cronk & Carrier Mfg. Co., Elmira, N. Y.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Jos. F. McCoy Co., 26 Warren St., N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.  
 D. Saunders Sons, Yonkers, N. Y.  
 Smith & Egge Mfg. Co., Bridgeport, Ct.  
 Smith & Hemenway Co., 296 Broadway,  
 New York.  
 Springfield Machine Screw Co., Spring-  
 field, Mass.  
 Tower & Lyon Co., 95 Chambers St.,  
 New York.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.  
 A. C. Williams, Ravenna, O.
- Pliers, Glass—**  
 Smith & Hemenway Co., 296 Broadway,  
 New York.
- Pliers, Heat Coil—**  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Knot Tying and  
 Splicing—**  
 Kilborn & Bishop Co., New Haven, Ct.  
 Jos. F. McCoy Co., 26 Warren St., N. Y.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Lineman's—**  
 John H. Graham & Co., 113 Chambers  
 St., New York.  
 Kilborn & Bishop Co., New Haven, Ct.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Opticians'—**  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.
- Utica Drop Forge & Tool Co., Utica,  
 N. Y.**
- Pliers, Piano Makers'—**  
 Tower & Lyon Co., 95 Chambers St.,  
 New York.
- Pliers, Plugging—**  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Tire Plugging—**  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.
- Pliers, Weavers'—**  
 Jos. F. McCoy Co., 26 Warren St., N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.
- Pliers, Webbing—**  
 Tower & Lyon Co., 95 Chambers St.,  
 New York.
- Plow Bolts, Castings, &c.—**  
 (See Bolts, Castings, &c.)
- Plow Handle Machines—**  
 (See Handle Machines, Plow.)
- Plows—**  
 Outaway Harrow Co., Higganum, Ct.  
 Dobbie Foundry & Machine Co., Niagara  
 Falls, N. Y.  
 W. C. Heller & Co., Montclair, N. J.  
 Kilbourne & Jacobs Mfg. Co., Colum-  
 bus, O.  
 Long & Allstatter Co., Hamilton, O.  
 Syracuse Chilled Plow Co., Syracuse,  
 N. Y.  
 R. W. Whitehurst Co., Norfolk, Va.
- Plows, Hand and Wheel—**  
 Bateman Mfg. Co., Grenloch, N. J.
- Plows, Ice—**  
 (See Ice Harvesting Tools.)
- Plows, Street, Railroad,  
 Snow—**  
 Taunton Locomotive Mfg. Co., Taunton,  
 Mass.
- Plug Gauges—**  
 (See Gauges, Plug and Ring.)
- Plug Machines, Wood—**  
 S. A. Woods Machine Co., So. Boston,  
 Mass.
- Plugs, Boiler Flue—**  
 Joseph T. Ryerson & Son, 13-22 Milwau-  
 kee Ave., Chicago, Ill.
- Plugs, Deck, Wooden—**  
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Plugs, Fusible—**  
 Crosby Steam Gage & Valve Co., Boston.  
 Illinois Malleable Iron Co., 30-32 W. Mon-  
 roe St., Chicago, Ill.
- Plugs, Paper—**  
 Lunkenheimer Co., Cincinnati, O.  
 E. W. Vanduzen Co., Cincinnati, O.  
 Walworth Mfg. Co., Boston, Mass.
- Plugs, Paper—**  
 E. B. Estes & Sons, 45-47 John St., N. Y.
- Plumbago—**  
 (See Graphite.)
- Plumbago Shapes—**  
 (See Shapes, Plumbago.)
- Plumb Bobs—**  
 (See Bobs, Plumb.)
- Plumbers—**  
 C. B. Chadwick & Co., Portsmouth, N. H.
- Plumbers' Brass Goods—**  
 (See Cocks, Brass.)

**Plumbers' Furnaces, Levels, &c.—**

(See Furnaces, Levels, &c.)

**Plumbing Brackets—**

(See Brackets, Plumbing.)

**Plumbing Supplies (Plunger Rubbers, Legs and Lavatory Fittings, Basin Plugs, &c.)—**

H. O. Canfield, Bridgeport, Ct.  
S. Cheney & Son, Manlius, N. Y.  
Helios-Upton Co., Peabody, N. Y.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
John C. Kuperle, St. Louis, Mo.  
Chas. Miller & Son Co., Utica, N. Y.  
Plunger & Henger Mfg. Co., St. Louis, Mo.  
Randolph-Clowes Co., Waterbury, Ct.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
Whitlock Coil Pipe Co., Hartford, Ct.  
(See also Gaskets and Rings.)

**Plumbs and Levels—**

Baker, McMillen Co., Akron, O.  
Chapin-Stephens Co., Pine Meadow, Ct.  
Henry Disston & Sons, Philadelphia, Pa.  
Millers Falls Co., 28 Warren St., N. Y.  
Stanley Rule & Level Co., New Britain, Ct.  
Tower & Lyon Co., 95 Chambers St., New York.

**Plumes, Horse and Sleigh—**  
Bevin Bros. Mfg. Co., East Hampton, Ct.  
Starr Brothers Bell Co., East Hampton, Ct.

**Plunger Rubbers—**

(See Plumbing Supplies.)

**Plungers, Boat—**

(See Valves and Plungers.)

**Plungers, Pump—**

Piqua Handle & Mfg. Co., Piqua, O.

**Pneumatic Call Bells, Hammers, &c.—**

(See Bells, Hammers, &c.)

**Pneumatic Tools—**

(See Compressed Air Tools and Tools, Pneumatic.)

**Poachers, Egg—**

Sidney Shepard & Co., Buffalo, N. Y.

**Pocket Cups, &c.—**

(See Cups, &c.)

**Pocket Knives—**

(See Cutlery, Pocket.)

**Pockets, Pistol, Rubber—**

Tower & Lyon Co., 95 Chambers St., New York.

**Pod Bits—**

(See Bits, Pod.)

**Pointers, Bolt—**

Asa S. Cook Co., Hartford, Ct.  
National Machinery Co., Tiffin, O.  
Reliance Machine & Tool Co., Cleveland, O.  
Webster & Perks Tool Co., Springfield, O.

**Pointers, Dowel—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

**Pointers, Pencil—**

Goodell Co., Antrim, N. H.

**Pointers, Picket—**

(See Picket Pointers.)

**Pointers, Spoke—**

Millers Falls Co., 28 Warren St., N. Y.

**Pointing Gimlet Coach**

**Screw Machinery—**  
Baker Bros., Toledo, O.

**Pointing Machinery, Pin—**  
E. J. Manville Machine Co., Waterbury, Ct.

**Pointing Machines, Rod and Tube—**

Excelsior Needle Co., Torrington, Ct.  
Henderson Bros., Waterbury, Ct.  
Standard Machinery Co., Providence, R. I.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Pointing Machines, Wire—**

Baird Machine Co., Oakville, Ct.  
Blake & Johnson, Waterbury, Ct.  
Excelsior Needle Co., Torrington, Ct.  
Morgan Construction Co., Worcester, Mass.

Standard Machinery Co., Providence, R. I.  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Waterbury Machine Co., Waterbury, Ct.  
Wright Wire Co., Worcester, Mass.

**Points, Carbon and Diamond—**

Est. of John Dickinson, 64 Nassau St., New York.

Steel Set Diamond Co., 36 Gold St., N. Y.

**Points, Diamond Graduating—**

Est. of John Dickinson, 64 Nassau St., New York.

**Points, Diamond Turning—**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Est. of John Dickinson, 64 Nassau St., New York.

Steel Set Diamond Co., 36 Gold St., N. Y.

**Points, Glaziers, &c.—**

Grand Crossing Tack Co., Grand Crossing, Ill.

Shelton Co., Derby, Ct.

**Points, Trammel—**

(See Trammels and Trammel Points.)

**Points, Veneer—**

Sargent & Co., 151 Leonard St., N. Y.

**Points, Well—**

(See Well Supplies and Tools.)

**Pokers, Stove—**

Federal Mfg. Co., Cleveland, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

Wire Goods Co., Worcester, Mass.  
(See also Shovels, Tongs, Pokers, Fire Sets.)

**Pokes, Animal—**

Iowa Farming Tool Co., Fort Madison, Ia.

**Pole Adjusters, Steps, Tips—**

(See Adjusters, Steps, Tips.)  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Poles, Hose, Seamless Steel—**

Shelby Steel Tube Co., Pittsburgh, Pa.

**Poles, Iron Flag—**

National Tube Co., Pittsburgh, Pa.

**Poles, Pike—**

Peter Gerlach Co., Cleveland, O.

Morley Bros., Saginaw, Mich.

**Poles, Trolley—**

Federal Mfg. Co., Cleveland, O.  
R. D. Nuttall Co., Pittsburgh, Pa.  
Shelby Steel Tube Co., Pittsburgh, Pa.

**Police Goods—**  
Iver Johnson's Arms & Cycle Works,  
Fitchburg, Mass.  
Tower & Lyon Co., 95 Chambers St.,  
New York.

**Polish, Floor—**  
John Lucas & Co., Race and 4th Sts.,  
Philadelphia, Pa.  
Eugene E. Nice, 272-274 S. 2d St., Phila-  
delphia, Pa.

**Polish, Furniture—**  
Devoe & Reynolds Co., 176 Randolph St.,  
Chicago, Ill.  
John Lucas & Co., Race and 4th Sts.,  
Philadelphia, Pa.  
Eugene E. Nice, 272-274 S. 2d St., Phila-  
delphia, Pa.

**Polishing and Buffing Sup-  
plies—**  
Chicago Wheel & Mfg. Co., 39-45 W.  
Randolph St., Chicago, Ill.  
Cutter, Wood & Stevens Co., Boston,  
Mass.

Hanson & Van Winkle Co., Newark, N. J.  
Sterling Emery Wheel Co., Tiffin, O.  
Zucker & Levett & Loeb Co., 526-530 West  
25th St., New York.

**Polishing Belts, Heads,  
Wheels—**  
(See Belts, Heads, Wheels.)

**Polishing Leather for Dry  
Tumbling Barrels—**  
Peckham Mfg. Co., Newark, N. J.

**Polishing Machines—**  
(See Buffing and Polishing Machines.)

**Polishing Machines, Glass—**  
Stow Flexible Shaft Co., 26th and Callow-  
hill Sts., Philadelphia, Pa.

**Polishing Machines, Marble  
and Stone—**  
F. B. Patch Mfg. Co., Rutland, Vt.

**Polishing Machines, Port-  
able, Wood and Metal—**  
Stow Flexible Shaft Co., 26th and Callow-  
hill Sts., Philadelphia, Pa.

**Polish, Metal—**  
Black Silk Stove Polish Works, Sterling,  
Ill.

Geo. W. Hoffman, Indianapolis, Ind.

**Polish, Stove—**  
Black Silk Stove Polish Works, Sterling,  
Ill.

Wm. Connors Paint Mfg. Co., Troy, N. Y.  
Joseph Dixon Crucible Co., Jersey City,  
N. J.

**Poppers, Corn—**  
Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.  
Delphos Can Co., Delphos, O.  
Gilbert & Bennett Mfg. Co., 27 Broad-  
way, New York.

Fred J. Meyers Mfg. Co., Hamilton, O.  
Parker Wire Goods Co., Worcester, Mass.  
Sidney Shepard & Co., Buffalo, N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
Wickwire Bros., Cortland, N. Y.  
Wire Goods Co., Worcester, Mass.

**Porch Supports—**  
(See Supports, Porch.)

**Portable Boring Machines,  
Drills, &c.—**  
(See Boring Machines, Drills, &c.)

**Portable Furnaces—**  
(See Furnaces, Portable.)

**Porticoes, Ornamental—**  
(See Iron Work, Builders.)

**Postal Scales—**  
(See Scales, Postal.)

**Post Bases, Fence—**  
Van Dorn Iron Works Co., Cleveland, O.

**Post Hole Diggers—**  
(See Diggers.)

**Post Hole Spades—**  
Mt. Pleasant Tool Co., Mt. Pleasant, Pa.

**Post Office Equipment—**  
Yale & Towne Mfg. Co., 9-15 Murray St.,  
New York.

Star Shovel & Range Co., Vincennes, Ind.

**Posts, Bicycle Saddle—**  
Federal Mfg. Co., Cleveland, O.

**Posts, Fence—**  
W. J. Adam, Joliet, Ill.

Avery Stamping Co., Cleveland, O.

De Kalb Fence Co., De Kalb, Ill.

Enterprise Foundry & Fence Co., Indian-  
apolis, Ind.

International Steel Post Co., St. Louis.

Kokomo Steel & Wire Co., Kokomo, Ind.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Majestic Wire Fence Co., Detroit, Mich.

Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

Wright Wire Co., Worcester, Mass.

**Posts, Hitching—**  
Bethlehem Foundry & Machine Co., South  
Bethlehem, Pa.

S. Cheney & Son, Manlius, N. Y.

Covert Mfg. Co., West Troy, N. Y.

Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

Donovan Wire & Iron Co., Toledo, O.

Enterprise Foundry & Fence Co., Indian-  
apolis, Ind.

Flint & Walling Mfg. Co., Kendallville,  
Ind.

Glen Mfg. Co., Ellwood City, Pa.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

International Fence & Fireproofing Co.,  
Columbus, O.

International Steel Post Co., St. Louis.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

National Iron & Wire Co., Cleveland, O.

Nazareth Foundry & Machine Co., Naza-  
reth, Pa.

Stewart Iron Works, Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

West Side Foundry Co., Troy, N. Y.

**Posts, Lamp—**  
Wm. Bayley & Sons, Milwaukee, Wis.

Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

Stewart Iron Works, Cincinnati, O.

United States Foundry & Sales Co., So.  
Norwalk, Ct.

R. D. Wood & Co., 400 Chestnut St.,  
Philadelphia, Pa.

**Posts, Mooring—**  
Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.

Nazareth Foundry & Machine Co., Naza-  
reth, Pa.

R. W. Whitehurst & Co., Norfolk, Va.

**Posts, Tool—**  
Springfield Drop Forging Co., Springfield,  
Mass.

**Post Tops, Fence—**

De Kalb Fence Co., De Kalb, Ill.  
Chas. G. Eckstein, 249 Centre St., N. Y.  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.  
Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.  
United States Foundry & Sales Co., So.  
Norwalk, Ct.

**Post Tops, Hitching—**

Wm. Bayley & Sons, Milwaukee, Wis.  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.  
Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

**Potato and Apple Parers—**

(See Parers, Apple and Potato.)

**Potato Cutters, Hooks,**

**Mashers—**  
(See Cutters, Hooks, Mashers.)

**Potato Machinery—**

Bateman Mfg. Co., Grenloch, N. J.

**Potato Mashers, Wire—**

(See Kitchen Articles, Wire.)

**Pot Covers—**

(See Covers, Pot.)

**Pots, Annealing, for Wire—**

Wm. B. Pollock Co., Youngstown, O.  
Turner, Vaughn & Taylor Co., Cuyahoga  
Falls, O.

**Pots, Chocolate, Tea, Coffee,**

**&c., Silver Plated—**

International Silver Co., 9-13 Maiden Lane,

**Pots, Electric Soldering—**

United Electric Heating Co., Detroit,

Mich.

**Pots, Glue—**

Fanner Mfg. Co., Cleveland, O.

J. A. Taggart, Toledo, O.

**Pots, Glue, Electric—**

United Electric Heating Co., Detroit,

Mich.

**Pots, Melting—**

Byram & Co., Detroit, Mich.

Hollands Mfg. Co., Erie, Pa.

L. O. Koven & Bro., 50 Cliff St., N. Y.

**Pots, Slag—**

Allis-Chalmers Co., Home Insurance

Bldg., Chicago, Ill.

Pennsylvania Engineering Works, New

Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.

**Pots, Solder—**

John C. Kupperle, St. Louis, Mo.

**Pots, Sprinkler—**

(See Tins, Piece and Stamped.)

**Pots, Tallow—**

American Tube & Stamping Co., Bridge-

port, Ct.

**Pots, Tea and Coffee—**

Rome Mfg. Co., Rome, N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

**Pots, Teming—**

McCullough-Dalzell Crucible Co., Pitts-

burgh, Pa.

**Pottery Machinery—**

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

**Pouches, Shot—**

Waterbury Bros. Co., Waterbury, Ct.

**Poultry Coops—**

(See Coops, Poultry.)

**Poultry Netting—**

(See Netting, Wire.)

**Pounders, Steak—**

R. H. Brown & Co., New Haven, Ct.  
Fanner Mfg. Co., Cleveland, O.  
Landers, Frary & Clark, New Britain, Ct.  
Parker Wire Goods Co., Worcester, Mass.  
Peck Stow & Wilcox Co., 27 Murray St.,  
New York.  
Stanley Rule & Level Co., New Britain, Ct.  
Stover Mfg. Co., Freeport, Ill.  
A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Powder—**

Rand Drill Co., 122 Broadway, New York.  
U. S. Rapid-Fire Gun & Power Co.,  
Derby, Ct.

**Powder Flasks—**

(See Flasks, Powder.)

**Powder Keg Material—**

J. Wood & Bros. Co., Conshohocken, Pa.

**Powder Mill Machinery—**

C. O. Bartlett & Snow Co., Cleveland, O.  
Birmingham Iron Foundry, Derby, Ct.  
Phosphor Bronze Smelting Co., 220 Wash-  
ington Ave., Philadelphia, Pa.

**Powder, Semi-Smokeless—**

King Powder Co., Cincinnati, O.

**Powder, Smokeless—**

King Powder Co., Cincinnati, O.

**Power Hammers—**

(See Hammers, Power.)

**Power, Foot—**

Goodell-Pratt Co., Greenfield, Mass.  
Slotkin & Fraglin, 210 Canal St., N. Y.

**Power, Horse—**

Goulds Mfg. Co., Seneca Falls, N. Y.

Stover Mfg. Co., Freeport, Ill.

**Power Transmission, Elec-**

**tric—**

General Electric Co., Schenectady, N. Y.  
Westinghouse Electric & Mfg. Co., Pitts-

burgh, Pa.

**Power Transmission Ma-**

**chinery—**

Allis-Chalmers Co., Home Insurance

Bldg., Chicago, Ill.

Borden & Selleck Co., 43 Lake St., Chi-

cago, Ill.

Buhl Malleable Co., Detroit, Mich.

H. W. Caldwell & Son Co., Western Ave.

and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Columbia Bridge Co., Pittsburgh, Pa.

Geo. V. Cresson Co., 18th St. and Alle-

gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Fairbanks Co., 416 Broome St., New York.

Farrel Fdy. & Mach. Co., Ansonia, Ct.

Fawcett Machine Co., Pittsburgh, Pa.

Filer & Stowell Co., Milwaukee, Wis.

Howard Iron Works Co., Buffalo, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Lane Mfg. Co., Montpelier, Vt.

A. Leschen & Sons Rope Co., St. Louis.

Link-Belt Engineering Co., Nicetown,

Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Min-

neapolis, Minn.

Norwalk Iron Works Co., So. Norwalk,

Ct.

Pool Engineering & Machine Co., Balti-

more, Md.

Saginaw Mfg. Co., Saginaw, Mich.

Warsaw Elevator Co., Warsaw, N. Y.

Wickes Bros., Saginaw, Mich.  
Wolf Co., 323 N. 23d St., Philadelphia, Pa.

#### MERCHANTS.

Browning Engineering Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
W. E. Caldwell Co., Louisville, Ky.  
Case Mfg. Co., Columbus, O.  
Fulton Foundry & Supply Co., 180 Fulton St., New York.  
McGeorge & Sons, Cleveland, O.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

#### Power Transmission, Vertical Shaft—

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.  
Dodge Mfg. Co., Mishawaka, Ind.

#### Presses, Arbor—

Fox Machine Co., Grand Rapids, Mich.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
Springfield Machine Tool Co., Springfield, O.  
Wilmarth & Morman Co., Grand Rapids, Mich.

#### Presses, Baling—

Watson-Stillman Co., 204-210 East 43d St., New York.  
R. W. Whitehurst & Co., Norfolk, Va.

#### Presses, Blanking—

Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Cleveland Stamping & Tool Co., Cleveland, O.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Chas. Leffler & Co., Brooklyn, N. Y.  
E. J. Manville Machine Co., Waterbury, Ct.  
Miner & Peck Mfg. Co., New Haven, Ct.  
Niagara Machine & Tool Works, Buffalo, N. Y.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.

#### Presses, Brick—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Presses, Broaching—

Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Pratt & Whitney Co., Hartford, Ct.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.  
Watson-Stillman Co., 204-210 East 43d St., New York.

**Presses, Car Seal—**  
Theo. Herts Metal Co., St. Louis, Mo.

#### Presses, Ceiling—

E. W. Bliss Co., Brooklyn, N. Y.  
Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
George A. Ohl & Co., Newark, N. J.

#### Presses, Coining—

(See Coining Machinery.)

#### Presses, Copying—

Fairbanks Co., 416 Broome St., New York.  
R. E. Kidder, Worcester, Mass.  
Henry E. Fridmore, Chicago, Ill.

#### Presses, Cork—

Enterprise Mfg. Co., Philadelphia, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

#### Presses, Cornice—

E. W. Bliss Co., Brooklyn, N. Y.  
Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
George A. Ohl & Co., Newark, N. J.

#### Presses, Cotton—

R. Bliss Mfg. Co., Pawtucket, R. I.  
R. W. Whitehurst & Co., Norfolk, Va.

#### Presses, Crank Pin—

Richard Dudgeon, 24-26 Columbia St., New York.

#### Presses, Cutting and Finishing—

Adriance Machine Works, Brooklyn, N. Y.  
E. J. Manville Machine Co., Waterbury, Ct.  
Niagara Machine & Tool Works, Buffalo, N. Y.

#### Presses, Drain, Tile—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

#### Presses, Drawing—

Adriance Machine Works, Brooklyn, N. Y.  
Avery Stamping Co., Cleveland, O.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
Gould & Eberhardt, Newark, N. J.  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Chas. Leffler & Co., Brooklyn, N. Y.  
E. J. Manville Machine Co., Waterbury, Ct.  
Miner & Peck Mfg. Co., New Haven, Ct.  
George A. Ohl & Co., Newark, N. J.  
Richard Mfg. Co., Bloomsburg, Pa.  
F. B. Shuster Co., New Haven, Ct.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.  
Watson-Stillman Co., 204-210 East 43d St., New York.

#### Presses, Drop—

(See Hammers, Drop.)

#### Presses, Electrotube—

Watson-Stillman Co., 204-210 East 43d St., New York.

#### Presses, Envelope—

R. E. Kidder, Worcester, Mass.

#### Presses, Filter—

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Presses, Flanging—**

Adriance Machine Works, Brooklyn, N. Y.  
 Alliance Machine Co., Alliance, O.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Consolidated Press & Tool Co., 96-100 N.  
 Clinton St., Chicago, Ill.  
 Chas. F. Elmes Engineering Works, 253-  
 259 Fulton St., Chicago, Ill.  
 Niagara Machine & Tool Works, Buffalo,  
 N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

Watson-Stillman Co., 204-210 East 43d St.,  
 N. Y.

Wickes Bros., Saginaw, Mich.

**Presses, Foot—**

Adriance Machine Works, Brooklyn, N. Y.  
 Blake & Johnson, Waterbury, Ct.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Consolidated Press & Tool Co., 96-100 N.  
 Clinton St., Chicago, Ill.  
 Erdie & Schenck, Rochester, N. Y.  
 Garvin Machine Co., Spring and Varick  
 Sts., New York.  
 Gould & Eberhardt, Newark, N. J.  
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
 Chas. Leffler & Co., Brooklyn, N. Y.  
 John Loyd Co., 558 Water St., N. Y.  
 E. J. Manville Machine Co., Waterbury,  
 Ct.

Niagara Machine & Tool Works, Buffalo,  
 N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

George A. Ohl & Co., Newark, N. J.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

F. B. Shuster Co., New Haven, Ct.  
 Standard Machinery Co., Providence, R. I.  
 V. & O. Press Co., Brooklyn, N. Y.  
 Waterbury Farrel Foundry & Machine  
 Co., Waterbury, Ct.

**Presses, Forging—**

Adriance Machine Works, Brooklyn, N. Y.  
 Alliance Machine Co., Alliance, O.  
 Avery Stamping Co., Cleveland, O.  
 Beaudry & Co., Boston, Mass.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Blake & Johnson, Waterbury, Ct.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Consolidated Press & Tool Co., 96-100 N.  
 Clinton St., Chicago, Ill.  
 Falkenau-Sinclair Mach. Co., 109 N. 23d  
 St., Philadelphia, Pa.  
 Chas. Leffler & Co., Brooklyn, N. Y.  
 Niagara Machine & Tool Works, Buffalo,  
 N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

Wm. Sellers & Co. (Inc.), Philadelphia.  
 George B. Sennett Co., Youngstown, O.  
 Standard Machinery Co., Providence, R. I.  
 V. & O. Press Co., Brooklyn, N. Y.  
 Watson-Stillman Co., 204-210 East 43d St.,  
 New York.

Wickes Bros., Saginaw, Mich.

**Presses, Friction Clutch—**

Adriance Machine Works, Brooklyn, N. Y.

**Presses, Fruit and Meat—**

Athol Machine Co., Athol, Mass.  
 Enterprise Mfg. Co., Philadelphia, Pa.  
 Fanner Mfg. Co., Cleveland, O.  
 Landers, Fray & Clark, New Britain, Ct.  
 R. W. Whitehurst & Co., Norfolk, Va.

**Presses, Gang Tool—**

Waterbury Machine Co., Waterbury, Ct.

**Presses, Gun Cotton—**

Wm. Sellers & Co., Inc., 16th and Hamil-  
 ton Sts., Philadelphia, Pa.

**Presses, Hand—**

Charles F. Elmes Engineering Works,  
 Morgan and Fulton Sts., Chicago, Ill.  
 Niagara Machine & Tool Works, Buffalo,  
 N. Y.

J. M. Robinson Mfg. Co., Cincinnati, O.

**Presses, Hand and Power—**

George A. Ohl & Co., Newark, N. J.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

J. E. Porter Co., Ottawa, Ill.

R. W. Whitehurst Co., Norfolk, Va.

**Presses, Hydraulic—**

Alliance Machine Co., Alliance, O.  
 Bethlehem Foundry & Machine Co.,  
 So. Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Birmingham Iron Foundry, Derby, Ct.

J. B. & J. M. Cornell, 239 11th Ave.,  
 New York.

Richard Dudgeon, 24-26 Columbia St.,  
 New York.

Chas. F. Elmes Engineering Works, 253-  
 259 Fulton St., Chicago, Ill.

Falkenau-Sinclair Mach. Co., 109 N. 23d  
 St., Philadelphia, Pa.

Farrel Foundry & Mach. Co., Ansonia, Ct.  
 Fischer Foundry & Machine Co., Pitts-  
 burgh, Pa.

John H. McGowan Co., Cincinnati, O.  
 Morgan Construction Co., Worcester,  
 Mass.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

Philadelphia Roll & Machine Co., 23d St.  
 & Washington Ave., Philadelphia.

George B. Sennett Co., Youngstown, O.  
 Waterbury Farrel Foundry & Machine  
 Co., Waterbury, Ct.

Watson-Stillman Co., 204-210 East 43d St.,  
 New York.

Wickes Bros., Saginaw, Mich.

R. D. Wood & Co., 490 Chestnut St.,  
 Philadelphia, Pa.

**Presses, Hydraulic Belting—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Chas. F. Elmes Engineering Works, Cor.  
 Morgan and Fulton Sts., Chicago, Ill.

**Presses, Hydraulic Oil—**

Charles F. Elmes Engineering Works,  
 Morgan and Fulton Sts., Chicago, Ill.

**Presses, Hydraulic Port-  
able—**

Charles F. Elmes Engineering Works,  
 Morgan and Fulton Sts., Chicago, Ill.

Vulcan Iron Works, 59 Milwaukee Ave.,  
 Chicago, Ill.

**Presses, Hydraulic Wheel—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Richard Dudgeon, 24 Columbia St., N. Y.

Chas. F. Elmes Engineering Works, 253-  
 259 Fulton St., Chicago, Ill.

Filer & Stowell Co., Milwaukee, Wis.  
 Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

Philadelphia Roll & Machine Co., 23d St.  
 & Washington Ave., Philadelphia.

Wm. Sellers & Co., Inc., Philadelphia.  
 Watson-Stillman Co., 204-210 East 43d St.,  
 New York.

Wickes Bros., Saginaw, Mich.  
 Walter A. Zelnick Supply Co., St. Louis, Mo.

**Presses, Lard and Tallow—**  
 Enterprise Mfg. Co., Philadelphia, Pa.  
 Landers, Frary & Clark, New Britain, Ct.  
 Silver Mfg. Co., Salem, O.

**Presses, Lead—**  
 Charles F. Elmes Engineering Works,  
 Morgan and Fulton Sts., Chicago, Ill.

**Presses, Lead Seal—**  
 Utica Drop Forge & Tool Co., Utica,  
 N. Y.

**Presses, Leather Embossing—**  
 George A. Ohl & Co., Newark, N. J.

**Presses, Letter—**  
 Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.  
**Presses, Paper, Carton Cover—**

Adriance Machine Works, Brooklyn, N. Y.  
 Chas. Leffler & Co., Brooklyn, N. Y.

**Presses, Power—**  
 Adriance Machine Works, Brooklyn, N. Y.  
 Alliance Machine Co., Alliance, O.  
 Automatic Machine Works, Brooklyn, N. Y.

Beaudry & Co., Boston, Mass.  
 Bethlehem Foundry & Machine Co.,  
 South Bethlehem, Pa.

Blake & Johnson, Waterbury, Ct.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Cleveland Punch & Shear Works Co.,  
 Cleveland, O.

Consolidated Press & Tool Co., 96-100 N.  
 Clinton St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-  
 259 Fulton St., Chicago, Ill.  
 Erdle & Schenck, Rochester, N. Y.

Falkenau-Sinclair Mach. Co., 109 N. 22d  
 St., Philadelphia, Pa.  
 Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring and Varick  
 Sts., New York.

Gould & Eberhardt, Newark, N. J.  
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.  
 Chas. Leffler & Co., Brooklyn, N. Y.  
 John Loyd Co., 528-532 Water St., N. Y.

E. J. Manville Machine Co., Waterbury,  
 Ct.  
 Miner & Peck Mfg. Co., New Haven, Ct.

Niagara Machine & Tool Works, Buffalo,  
 N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

George A. Ohl & Co., Newark, N. J.  
 Pratt & Whitney Co., Hartford, Ct.

Richard Mfg. Co., Bloomsburg, Pa.  
 J. M. Robinson Mfg. Co., Cincinnati, O.  
 George B. Sennett Co., Youngstown, O.

F. B. Shuster Co., New Haven, Ct.  
 Springfield Machine Tool Co., Springfield,  
 O.

Standard Machinery Co., Providence, R. I.  
 V. & O. Press Co., Brooklyn, N. Y.

Waterbury Farrel Foundry & Machine  
 Co., Waterbury, Ct.  
 Waterbury Machine Co., Waterbury, Ct.

Watson-Stillman Co., 204-210 East 43d St.,  
 New York.  
 Woolley Foundry & Machine Works, Anderson, Ind.

# MERCHANTS.

George E. Amleck, 107 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39 S. Canal  
 St., Chicago, Ill.

Wm. J. Dunn, Fall River, Mass.  
 Fairbanks Co., 416 Broome St., New York

Hill, Clarke & Co., Boston, Mass.  
 W. C. Johnson & Sons Machinery Co.,  
 St. Louis, Mo.

J. J. McCabe, 11 Dey St., New York.  
 Marshall & Huschart Machinery Co.,  
 62-64 S. Canal St., Chicago, Ill.

Prestiss Tool & Supply Co., 115 Liberty  
 St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee  
 Ave., Chicago, Ill.

Stiles-Morse Co., 63 Washington St., Chi-  
 cago, Ill.

J. R. Vanduyck Co., 8 Dey St., New York.  
**Presses, Punching and Trimming—**

Adriance Machine Works, Brooklyn, N. Y.  
 Avery Stamping Co., Cleveland, O.

Bethlehem Foundry & Machine Co.,  
 South Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.  
 Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.  
 R. Bliss Mfg. Co., Pawtucket, R. I.

Cincinnati Punch & Shear Co., Cincin-  
 nati, O.

Cleveland Punch & Shear Works Co.,  
 Cleveland, O.

Falkenau-Sinclair Mach. Co., 109 N. 22d  
 St., Philadelphia, Pa.

Fox Machine Co., Grand Rapids, Mich.  
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.  
 Chas. Leffler & Co., Brooklyn, N. Y.

E. J. Manville Machine Co., Waterbury,  
 N. Y.

Merrill Bros., Brooklyn, N. Y.  
 Miner & Peck Mfg. Co., New Haven, Ct.

New Doty Mfg. Co., Janesville, Wis.  
 Niagara Machine & Tool Works, Buffalo,  
 N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St.,  
 New York.

Pratt & Whitney Co., Hartford, Ct.  
 J. M. Robinson Mfg. Co., Cincinnati, O.

Springfield Machine Tool Co., Spring-  
 field, O.

Standard Machinery Co., Providence, R. I.  
 V. & O. Press Co., Brooklyn, N. Y.

Waterbury Farrel Foundry & Machine  
 Co., Waterbury, Ct.  
 Waterbury Machine Co., Waterbury, Ct.

Watson-Stillman Co., 204-210 East 43d St.,  
 New York.  
 Wiley & Russell Mfg. Co., Greenfield,  
 Mass.

**Presses, Roofing and Tile—**  
 Turner Vaughn & Taylor Co., Cuyahoga  
 Falls, O.

**Presses, Rubber Vulcanizing—**  
 Chas. F. Elmes Engineering Works, Mor-  
 gan and Fulton Sts., Chicago, Ill.

Farrel Foundry & Mach. Co., Ansonia, Ct.

**Presses, Screw—**  
 W. E. & John Barnes Co., Rockford, Ill.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N.  
 Clinton St., Chicago, Ill.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
Farrel Foundry & Mach. Co., Ansonia, Ct.  
Globe Machine & Stamping Co., Cleveland, O.  
Gould & Eberhardt, Newark, N. J.  
Chas. Leffer & Co., Brooklyn, N. Y.  
John Loyd Co., 558 Water St., N. Y.  
Niagara Machine & Tool Works, Buffalo, N. Y.  
Standard Machinery Co., Providence, R. I.  
V. & O. Press Co., Brooklyn, N. Y.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Presses, Seal—**  
Chas. Morrill, 27 Broadway, New York.  
Geo. M. Ness, Jr., 61 Fulton St., N. Y.  
Schwerdtle Stamp Co., Bridgeport, Ct.  
Smith & Hemenway Co., 226 Broadway, New York.

**Presses, Stamping—**  
Adriance Machine Works, Brooklyn, N. Y.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Cleveland Stamping & Tool Co., Cleveland, Ohio.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
Fox Machine Co., Grand Rapids, Mich.  
Chas. Leffer & Co., Brooklyn, N. Y.  
Miner & Peck Mfg. Co., New Haven, Ct.  
Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.  
J. M. Robinson Mfg. Co., Cincinnati, O.  
Standard Machinery Co., Providence, R. I.  
Union Mfg. & Specialty Co., Buffalo, N. Y.  
V. & O. Press Co., Brooklyn, N. Y.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.

**Presses, Steam Sewer Pipe—**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Presses, Steel Plate Engraving, and Printing—**  
Gould & Eberhardt, Newark, N. J.

**Presses, Tile—**  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

**Presses, Tincture—**  
Enterprise Mfg. Co., Philadelphia, Pa.

**Presses, Tire Welding—**  
Williams, White & Co., Moline, Ill.

**Presses, Tobacco—**  
Cutaway Harrow Co., Higganum, Ct.  
L. B. Spencer's Sons, Guilford, Ct.

**Presses, Vegetable—**  
Fanner Mfg. Co., Cleveland, O.

**Presses, Veneer—**  
Fox Machine Co., Grand Rapids, Mich.

**Presses, Wiring—**  
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

**Primer Making Machines—**  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Primers, Veneer—**  
Peters Cartridge Co., Cincinnati, O.  
Union Metallic Cartridge Co., Bridgeport, Ct.

Waterbury Brass Co., Waterbury, Ct.  
**Printers' Rule Brass—**  
(See Brass Rule, Printers.)

**Printing Apparatus, Blue—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
**Printing Machinery—**  
Howard Iron Works, Buffalo, N. Y.

**Prods, Cattle—**  
Iowa Farming Tool Co., Ft. Madison, Ia.

**Producers, Gas—**  
American Furnace & Machine Co., Pittsburgh, Pa.

Amsler Engineering Co., Pittsburgh, Pa.  
Broomell, Schmidt & Steacy Co., York, Pa.

Duff Patents Co., Pittsburgh, Pa.  
Edward E. Erksen, Pittsburgh, Pa.

Forster-Miller Engineering Co., Pittsburgh, Pa.  
J. A. Herrick, Mutual Life Bldg., Philadelphia, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.  
G. W. McClure, Son & Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Wm. B. Pollock Co., Youngstown, O.  
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

S. R. Smythe Co., Pittsburgh, Pa.  
Wm. Swindle & Bro., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.  
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Profiling Machines—**  
Blake & Johnson, Waterbury, Ct.  
Garvin Machine Co., Spring & Varick Sts., New York.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
**Programme Clocks—**  
(See Clocks, Programme.)

**Projectiles—**  
National Tube Co., Pittsburgh, Pa.

**Prop Block Washers—**  
(See Washers, Prop Block.)

**Protectors, Package—**  
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

**Protectors, Set Screw—**  
H. O. Canfield, Bridgeport, Ct.

**Protectors, Strap—**  
Covert's Saddlery Works, Farmer, N. Y.

**Protractors—**  
Athol Machine Co., Athol, Mass.  
Brown & Sharpe Mfg. Co., Providence, R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.  
**Protractors and Triangles—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.

Tower & Lyon Co., 95 Chambers St., New York.

**Provision Safes—**  
(See Safes, Provision.)

**Pruners—**  
Fred J. Meyers Mfg. Co., Hamilton, O.  
Novelty Mfg. Co., Jackson, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Pruning Saws, Shears—**  
(See Saws, Shears.)

**Publishers, Book—**  
David Williams Co., 232-238 William St., New York.

**Publishers, Catalogue—**  
A. Mugford, Hartford, Ct.  
David Williams Co., 232-238 William St., New York.



**Pug Mills—**

Thomas Carlin's Sons, Allegheny, Pa.  
J. W. Paxson Co., 1021 N. Delaware Ave.,  
Philadelphia, Pa.  
Turner Vaughn & Taylor Co., Cuyahoga  
Falls, O.

**Pullers, Cork—**

Arcade Mfg. Co., Freeport, Ill.  
Enterprise Mfg. Co., Philadelphia, Pa.  
Erie Specialty Co., Erie, Pa.  
John H. Graham & Co., 113 Chambers St.,  
New York.

Hugo Reisinger, 11 Broadway, New York.  
C. T. Williamson Wire Novelty Co.,  
Newark, N. J.

**Pullers, Nail—**

Belden Machine Co., New Haven, Ct.  
Bridgeport Hardware Mfg. Co., Bridge-  
port, Ct.  
Killborn & Bishop Co., New Haven, Ct.  
Millers Falls Co., 28 Warren St., N. Y.  
Scranton & Co., New Haven, Ct.  
Smith & Hemenway Co., 286 Broadway,  
New York.  
Tower & Lyon Co., 95 Chambers St.,  
New York.

**Pullers, Railroad Spike—**

Charles Morrill, 27 Broadway, N. Y.

**Pullers, Staple—**

Utica Drop Forge & Tool Co., Utica,  
N. Y.

**Pullers, Tack—**

Bridgeport Hardware Mfg. Co., Bridge-  
port, Ct.  
Cronk & Carrier Mfg. Co., Elmira, N. Y.  
Federal Mfg. Co., Cleveland, O.  
Hoerle Mfg. Co., Pittsburgh, Pa.  
Hurwood Mfg. Co., Bridgeport, Ct.  
L. D. Parkhurst, Danielson, Ct.  
Sargent & Co., 151 Leonard St., N. Y.  
Scranton & Co., New Haven, Ct.  
Smith & Hemenway Co., 286 Broadway,  
New York.  
Springfield Machine Screw Co., Spring-  
field, Mass.  
Utica Drop Forge & Tool Co., Utica,  
N. Y.  
A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Pulley Bushings, Turning  
Lathes, &c.—**

(See Bushings, Lathes, &c.)

**Pulley Hooks, Floor—**

(See Hooks, Floor Pulley.)

**Pulleys, Ceiling—**

Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

**Pulleys, Clothes Line—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

**Pulleys, Dumb Walter—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**J. G. Speidel, Reading, Pa.**

Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

**Pulleys, Electric Light—**

Reading Hardware Co., Reading, Pa.  
Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

**Pulleys, Friction Clutch—**

E. W. Bliss Co., Brooklyn, N. Y.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.

**Brown Hoisting Machinery Co., Inc.,  
Cleveland, O.**

H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.

Charter Gas Engine Co., Sterling, Ill.

Geo. V. Cresson Co., 18th St. and Alle-  
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Filer & Stowell Co., Milwaukee, Wis.

Garvin Machine Co., Spring & Varick Sts.,  
New York.

Hess-Snyder Co., Massillon, O.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown,  
Philadelphia, Pa.

Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

New Haven Mfg. Co., New Haven, Ct.

Poole Engineering & Machine Co., Balti-  
more, Md.

Pratt & Whitney Co., Hartford, Ct.

Wilmarth & Morman Co., Grand Rapids,  
Mich.

Wolf Co., 523 N. 23d St., Philadelphia, Pa.

**Pulleys, Hay Fork and  
Sling—**

Boston & Lockport Block Co., Lockport,  
N. Y.

S. Cheney & Son, Manlius, N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John C. Kupferle, St. Louis, Mo.

Lawrence Bros., Sterling, Ill.

Louden Machinery Co., Fairfield, Ia.

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

J. E. Porter Co., Ottawa, Ill.

Reading Hardware Co., Reading, Pa.

Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

Susquehanna Castings Co., Wrightsville,  
Pa.

Wrightsville Hardware Co., Wrightsville,  
Pa.

**Pulleys, Hot House—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Pulleys, Loose—**

Wilmarth & Morman Co., Grand Rapids,  
Mich.

**Pulleys, Pressed Steel—**

American Pulley Co., 29th and Bristol  
Sts., Philadelphia, Pa.

**Pulleys, Sash—**

Caldwell Mfg. Co., Rochester, N. Y.

Fox Machine Co., Grand Rapids, Mich.

Grand Rapids Hardware Co., Grand Rap-  
ids, Mich.

Johnston & Sharp Mfg. Co., Ottumwa, Ia.

John C. Kupferle, St. Louis, Mo.  
New York Lock Co., Branford, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Pullman Mfg. Co., Rochester, N. Y.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
Stover Mfg. Co., Freeport, Ill.  
Susquehanna Castings Co., Wrightsville,  
Pa.  
W. & J. Tiebout, 118 Chambers St., N. Y.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Pulleys, Screw—**

Ney Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

**Pulleys, Self Adjustable  
Shade—**

I. E. Palmer, Middletown, Ct.  
**Pulleys, Shaft—**  
Allis-Chalmers Co., Home Insurance  
Bldg., Chicago, Ill.  
American Pulley Co., 29th and Bristol  
Sts., Philadelphia, Pa.  
American Tool & Machine Co., Boston.  
Baker Bros., Toledo, O.  
Boston Gear Works, Boston, Mass.  
H. W. Caldwell & Sons Co., Western Ave.  
and 17th St., Chicago, Ill.  
Case Mfg. Co., Columbus, O.  
Charter Gas Engine Co., Sterling, Ill.  
Columbia Bridge Co., Pittsburgh, Pa.  
Geo. V. Cresson Co., 18th St. and Alle-  
gheny Ave., Philadelphia, Pa.  
Dodge Mfg. Co., Mishawaka, Ind.  
Eastern Machinery Co., New Haven, Ct.  
Fairbanks Co., 416 Broome St., New York.  
Filer & Stowell Co., Milwaukee, Wis.  
I. & E. Greenwald Co., Cincinnati, O.  
Hess-Snyder Co., Massillon, O.  
Howard Iron Works, Buffalo, N. Y.  
Jeffrey Mfg. Co., Columbus, O.  
Jones & Laughlin Steel Co., Pittsburgh.  
Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.  
Ohio Pulley Co., Marion, O.  
F. R. Patch Mfg. Co., Rutland, Vt.  
Poole Engineering & Machine Co., Balti-  
more, Md.  
Saginaw Mfg. Co., Saginaw, Mich.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
Southern Engine & Boiler Works, Jack-  
son, Tenn.  
B. F. Sturtevant Co., Boston, Mass.  
Warsaw Elevator Co., Warsaw, N. Y.  
Wicks Bros., Saginaw, Mich.  
Wolf Co., 523 N. 23d St., Philadelphia, Pa.

**Pulleys, Side—**

Ney Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers  
St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Pulleys, Split—**

American Pulley Co., 29th and Bristol  
Sts., Philadelphia, Pa.  
Buhl Malleable Co., Detroit, Mich.  
Case Mfg. Co., Columbus, O.  
Geo. V. Cresson Co., 18th St. & Alle-  
gheny Ave., Philadelphia, Pa.  
Hess-Snyder Co., Massillon, O.  
Minneapolis Steel & Machinery Co., Min-  
neapolis, Minn.

**Pulleys, Steel Face—**

Case Mfg. Co., Columbus, O.  
Federal Mfg. Co., Cleveland, O.

**Pulleys, Tackle or Awning—**

Boston & Lockport Block Co., Boston,  
Mass.

A. Leschen & Sons Rope Co., St. Louis,  
Mo.

Ney Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

**Pulleys, Upright—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Pulleys, Wagon Brake—**

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

**Pulleys, Wire Stretching—**

Otis A. Smith, Rockfall, Ct.

**Pulleys, Wood Rim—**

Lane Mfg. Co., Montpelier, Vt.

**Pulleys, Wood Split—**

Baker Bros., Toledo, O.  
Case Mfg. Co., Columbus, O.  
Dodge Mfg. Co., Mishawaka, Ind.  
Fairbanks Co., 416 Broome St., New York.  
Jeffrey Mfg. Co., Columbus, O.  
Ohio Pulley Co., Marion, O.  
Saginaw Mfg. Co., Saginaw, Mich.

**Pull Plates—**

(See Plates, Pull, Push and Kick.)

**Pulls, Bell—**

W. R. Ostrander & Co., 22 Dey St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9-13 Murray St.,  
New York.

**Pulls, Door—**

Arcade Mfg. Co., Freeport, Ill.  
M. S. Brooks & Sons, Chester,  
Chicago Spring Butt Co., Chicago, Ill.  
F. E. Kohler & Co., Canton, O.  
Midland Iron Works, Racine, Wis.  
National Mfg. Co., Sterling, Ill.  
New York Lock Co., Branford, Ct.  
Ney Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.  
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.  
 W. & J. Ribbott, 118 Chambers St., N. Y.  
 U. S. Steel Lock Co., Clinton, Ia.  
 Wilcox Mfg. Co., Aurora, Ill.  
 Wire Goods Co., Worcester, Mass.  
 Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Pulls, Drawer—**  
 Arcade Mfg. Co., Freeport, Ill.  
 Jos. Bardsley, 147-151 Baxter St., N. Y.  
 Globe Machine & Stamping Co., Cleveland, O.  
 Griffin Mfg. Co., Erie, Pa.  
 Lawrence Bros., Sterling, Ill.  
 National Mfg. Co., Sterling, Ill.  
 New York Lock Co., Branford, Ct.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Shelby Spring Hinge Co., Shelby, O.  
 Stanley Works, New Britain, Ct.  
 Stover Mfg. Co., Freeport, Ill.  
 Taylor & Boggs Foundry Co., Cleveland, A. C. Williams, Ravenna, O.  
 Wire Goods Co., Worcester, Mass.  
 Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Pulls, Screen or Box—**  
 Parker Wire Goods Co., Worcester, Mass.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
 Sargent & Co., 151 Leonard St., N. Y.

**Pulls, Shade—**  
 M. S. Brooks & Son, Chester, Ct.

**Pulls, Window—**  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Pulverizers, Ore and Clay—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 A. Garrison Foundry Co., Pittsburgh, Pa.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Pump Chain, Cylinders, Rods—**  
 (See Chain, Cylinders, Rods.)

**Pump Fitters' Supplies—**  
 Humphries Mfg. Co., Mansfield, O.  
 Walworth Mfg. Co., Boston, Mass.

**Pump Fixtures, Chain—**  
 Cleveland Galvanizing Works, Cleveland.  
 John C. Kupferle, St. Louis, Mo.  
 Plunger & Henger Mfg. Co., St. Louis, Mo.  
 Union Mfg. Co., New Britain, Ct.

**Pumping Oil Wells, Machinery for—**

A. D. Cook, Lawrenceburg, Ind.  
 Merrell Mfg. Co., Toledo, O.

**Pump Leathers—**  
 (See Leathers, Pump.)

**Pump Pressure Regulators—**  
 (See Regulators, Pump Pressure.)

**Pump Rod Couplings—**  
 (See Couplings, Pump Rod.)

**Pumps, Air Lift—**  
 American Air Compressor Works, 26 Cortlandt St., New York.  
 Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
 Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.

McKiernan Drill Co., 120 Liberty St., New York.

Rand Drill Co., 128 Broadway, New York.

**Pumps—Ale or Beer—**

Union Mfg. Co., New Britain, Ct.

**Pumps, Artesian Well, and Cylinders—**

Barnes Mfg. Co., Mansfield, Mass.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 John H. McGowan Co., Cincinnati, O.  
 F. E. Myers & Bro., Ashland, O.

**Pumps, Bicycle and Automobile—**

Braunsdorf-Mueller Co., Elizabeth, N. J.  
 Bridgeport Brass Co., Bridgeport, Ct.  
 Rome Mfg. Co., Rome, N. Y.

**Pumps, Boiler Feed—**

Allentown Rolling Mills, Allentown, Pa.  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Barnes Mfg. Co., Mansfield, O.  
 Buffalo Forge Co., Buffalo, N. Y.

Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.  
 Benj. F. Kelley & Son, 91 Liberty St., N. Y.

John H. McGowan Co., Cincinnati, O.  
 Mason Regulator Co., Boston, Mass.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

F. E. Myers & Bro., Ashland, O.  
 Frank L. Patterson & Co., 26 Cortlandt St., New York.

Rock River Machine Co., Janesville, Wis.

**Pumps, Boiler Test—**

Barnes Mfg. Co., Mansfield, Mass.  
 Bridgeport Brass Co., Bridgeport, Ct.

Buffalo Forge Co., Buffalo, N. Y.  
 Crosby Steam Gage & Valve Co., Boston.

A. L. Hender's Sons, Wilmington, Del.  
 Scovill Mfg. Co., Waterbury, Ct.

**Pumps, Brass—**

Barnes Mfg. Co., Mansfield, Mass.  
 Bridgeport Brass Co., Bridgeport, Ct.

Humphries Mfg. Co., Mansfield, O.  
 Illinois Malleable Iron Co., 39-52 W. Monroe St., Chicago, Ill.

Scovill Mfg. Co., Waterbury, Ct.

**Pumps, Brewers—**

American Air Compressor Works, 26 Cortlandt St., New York.

**Pumps, Centrifugal—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Barnes Mfg. Co., Mansfield, O.  
 Buffalo Forge Co., Buffalo, N. Y.

Connersville Blower Co., Connersville, Ind.  
 Crane Co., Chicago, Ill.

Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.

**Humphrey Machine Co.,** Keene, N. H.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**Southwark Foundry & Machine Co.,**  
 Philadelphia, Pa.  
**Union Mfg. Co.,** New Britain, Ct.  
**R. D. Wood & Co.,** 400 Chestnut St.,  
 Philadelphia, Pa.

**Pumps, Chain—**  
 Cleveland Galvanizing Works, Cleveland.  
**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Circulating—**  
**Alberger Condenser Co.,** 95 Liberty St.,  
 New York.

**Pumps, Cistern, Pitcher  
 Spout, &c.—**

**Barnes Mfg. Co.,** Mansfield, O.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.  
**Flint & Walling Mfg. Co.,** Kendallville,  
 Ind.

**Hess, Snyder & Co.,** Massillon, O.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**F. E. Myers & Bro.,** Ashland, O.  
**J. E. Porter Co.,** Ottawa, Ill.  
**St. Joseph Pump & Mfg. Co.,** St. Joseph,  
 Mo.

**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Compression and  
 Vacuum—**

**American Air Compressor Works,** 26 Cort-  
 landt St., New York.  
**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Crosby Steam Gauge & Valve Co.,** Boston.  
**Deming Co.,** Salem, O.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**John H. McGowan Co.,** Cincinnati, O.

**Pumps—Copper—**  
**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Diaphragm—**  
**Barnes Mfg. Co.,** Mansfield, O.  
**Boston & Lockport Block Co.,** Boston.  
**Edson Mfg. Co.,** Boston, Mass.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**Union Hardware Co.,** Torrington, Ct.

**Pumps, Electric—**  
**Allentown Rolling Mills,** Allentown, Pa.  
**Buffalo Forge Co.,** Buffalo, N. Y.

**Deming Co.,** Salem, O.  
**General Electric Co.,** Schenectady, N. Y.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Jeffrey Mfg. Co.,** Columbus, O.  
**John H. McGowan Co.,** Cincinnati, O.  
**Northern Electrical Mfg. Co.,** Madison,  
 Wis.

**Pumps, Elevator—**  
**Allentown Rolling Mills,** Allentown, Pa.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Builders Iron Foundry,** Providence, R. I.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**John H. McGowan Co.,** Cincinnati, O.

**Pumps, Elevator Bucket  
 and Purifying—**  
**Buhl Malleable Co.,** Detroit, Mich.  
**Cleveland Galvanizing Works,** Cleveland.  
**F. E. Myers & Bro.,** Ashland, O.  
**St. Joseph Pump & Mfg. Co.,** St. Joseph,  
 Mo.

**Pumps, Fire—**  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.

**Humphreys Mfg. Co.,** Mansfield, O.  
**F. E. Myers & Bro.,** Ashland, O.

**Pumps, Force—**

**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.  
**Flint & Walling Mfg. Co.,** Kendallville,  
 Ind.

**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Hess-Snyder Co.,** Massillon, O.  
**Humphrey Machine Co.,** Keene, N. H.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**McNab & Harlin Mfg. Co.,** 56 John St.,  
 New York.

**F. E. Myers & Bro.,** Ashland, O.  
**J. E. Porter Co.,** Ottawa, Ill.

**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Gas Engine Start-  
 ing—**

**Goulds Mfg. Co.,** Seneca Falls, N. Y.

**Pumps, Gauge Test—**  
**American Steam Gauge & Valve Mfg.  
 Co.,** Boston, Mass.

**Walworth Mfg. Co.,** Boston, Mass.

**Pumps, Grouting, Sewerage,  
 Quarry—**

**Allis-Chalmers Co.,** Home Insurance  
 Bldg., Chicago, Ill.  
**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.  
**Edson Mfg. Co.,** Boston, Mass.

**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.

**Pumps, Ham Preserving—**  
**Deming Co.,** Salem, O.

**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Silver Mfg. Co.,** Salem, O.

**Pumps, Horse-power—**  
**Barnes Mfg. Co.,** Mansfield, O.

**Deming Co.,** Salem, O.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.

**Humphreys Mfg. Co.,** Mansfield, O.  
**F. E. Myers & Bro.,** Ashland, O.

**Pumps, Hydraulic—**  
**Bethlehem Foundry & Machine Co.,** So.  
 Bethlehem, Pa.

**Pumps, Irrigation—**  
**Allentown Rolling Mills,** Allentown, Pa.

**Allis-Chalmers Co.,** Home Insurance  
 Bldg., Chicago, Ill.  
**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.

**Boston & Lockport Block Co.,** Boston,  
 Mass.

**Buffalo Forge Co.,** Buffalo, N. Y.  
**Builders Iron Foundry,** Providence, R. I.

**H. W. Caldwell & Son Co.,** Western Ave.  
 and 17th St., Chicago, Ill.

**Charter Gas Engine Co.,** Sterling, Ill.  
**Deming Co.,** Salem, O.

**Flint & Walling Mfg. Co.,** Kendallville,  
 Ind.

**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.

**John H. McGowan Co.,** Cincinnati, O.  
**F. E. Myers & Bro.,** Ashland, O.

**Power Specialty Co.,** 125 Liberty St.,  
 New York.

**St. Joseph Pump & Mfg. Co.,** St. Joseph,  
 Mo.

**Weber Gas & Gasoline Engine Co.,** Kan-  
 sas City, Mo.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.  
 W. & J. Tibbott, 115 Chambers St., N. Y.  
 U. S. Steel Lock Co., Clinton, Ia.  
 Wilcox Mfg. Co., Aurora, Ill.  
 Wire Goods Co., Worcester, Mass.  
 Yale & Towne Mfg. Co., 9-13 Murray St., New York.

**Pulls, Drawer—**  
 Arcade Mfg. Co., Freeport, Ill.  
 Joe. Bardsley, 147-151 Baxter St., N. Y.  
 Globe Machine & Stamping Co., Cleveland, O.  
 Griffin Mfg. Co., Erie, Pa.  
 Lawrence Bros., Sterling, Ill.  
 National Mfg. Co., Sterling, Ill.  
 New York Lock Co., Branford, Ct.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Shelby Spring Hinge Co., Shelby, O.  
 Stanley Works, New Britain, Ct.  
 Stover Mfg. Co., Freeport, Ill.  
 Taylor & Boggs Foundry Co., Cleveland, A. C. Williams, Ravenna, O.  
 Wire Goods Co., Worcester, Mass.  
 Wrightsville Hardware Co., Wrightsville, Pa.  
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Pulls, Screen or Box—**  
 Parker Wire Goods Co., Worcester, Mass.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Reading Hardware Co., Reading, Pa.  
 Sargent & Co., 151 Leonard St., N. Y.

**Pulls, Shade—**  
 M. S. Brooks & Son, Chester, Ct.

**Pulls, Window—**  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Pulverizers, Ore and Clay—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 A. Garrison Foundry Co., Pittsburg, Pa.  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Pump Chain, Cylinders, Rods—**  
 (See Chain, Cylinders, Rods.)

**Pump Fitters' Supplies—**  
 Humphries Mfg. Co., Mansfield, O.  
 Walworth Mfg. Co., Boston, Mass.

**Pump Fixtures, Chain—**  
 Cleveland Galvanizing Works, Cleveland.  
 John C. Kupferle, St. Louis, Mo.  
 Plesger & Henger Mfg. Co., St. Louis, Mo.  
 Union Mfg. Co., New Britain, Ct.

**Pumping Oil Wells, Machinery for—**

A. D. Cook, Lawrenceburg, Ind.  
 Merrell Mfg. Co., Toledo, O.

**Pump Leathers—**  
 (See Leathers, Pump.)

**Pump Pressure Regulators—**  
 (See Regulators, Pump Pressure.)

**Pump Rod Couplings—**  
 (See Couplings, Pump Rod.)

**Pumps, Air Lift—**  
 American Air Compressor Works, 26 Cortlandt St., New York.  
 Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
 Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.  
 McKiernan Drill Co., 120 Liberty St., New York.  
 Rand Drill Co., 128 Broadway, New York.

**Pumps—Ale or Beer—**  
 Union Mfg. Co., New Britain, Ct.

**Pumps, Artesian Well, and Cylinders—**

Barnes Mfg. Co., Mansfield, Mass.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 John H. McGowan Co., Cincinnati, O.  
 F. E. Myers & Bro., Ashland, O.

**Pumps, Bicycle and Automobile—**

Braunsdorf-Mueller Co., Elizabeth, N. J.  
 Bridgeport Brass Co., Bridgeport, Ct.  
 Rome Mfg. Co., Rome, N. Y.

**Pumps, Boiler Feed—**  
 Allentown Rolling Mills, Allentown, Pa.  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Barnes Mfg. Co., Mansfield, O.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 Benj. F. Kelley & Son, 91 Liberty St., N. Y.

John H. McGowan Co., Cincinnati, O.  
 Mason Regulator Co., Boston, Mass.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.

F. E. Myers & Bro., Ashland, O.  
 Frank L. Patterson & Co., 26 Cortlandt St., New York.  
 Rock River Machine Co., Janesville, Wis.

**Pumps, Boiler Test—**  
 Barnes Mfg. Co., Mansfield, Mass.  
 Bridgeport Brass Co., Bridgeport, Ct.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Crosby Steam Gage & Valve Co., Boston.  
 A. L. Henderer's Sons, Wilmington, Del.  
 Scovill Mfg. Co., Waterbury, Ct.

**Pumps, Brass—**  
 Barnes Mfg. Co., Mansfield, Mass.  
 Bridgeport Brass Co., Bridgeport, Ct.  
 Humphries Mfg. Co., Mansfield, O.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 Scovill Mfg. Co., Waterbury, Ct.

**Pumps, Brewers—**  
 American Air Compressor Works, 26 Cortlandt St., New York.

**Pumps, Centrifugal—**  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Barnes Mfg. Co., Mansfield, O.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Connorsville Blower Co., Connorsville, Ind.  
 Crane Co., Chicago, Ill.  
 Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.

**Humphrey Machine Co.,** Keene, N. H.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**Southwick Foundry & Machine Co.,**  
 Philadelphia, Pa.  
**Union Mfg. Co.,** New Britain, Ct.  
**R. D. Wood & Co.,** 400 Chestnut St.,  
 Philadelphia, Pa.

**Pumps, Chain—**  
 Cleveland Galvanizing Works, Cleveland.  
**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Circulating—**  
**Alberger Condenser Co.,** 85 Liberty St.,  
 New York.

**Pumps, Cistern, Pitcher**

**Spout, &c.—**  
**Barnes Mfg. Co.,** Mansfield, O.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.  
**Flint & Walling Mfg. Co.,** Kendallville,  
 Ind.

**Hess, Snyder & Co.,** Massillon, O.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**F. E. Myers & Bro.,** Ashland, O.  
**J. E. Porter Co.,** Ottawa, Ill.  
**St. Joseph Pump & Mfg. Co.,** St. Joseph,  
 Mo.

**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Compression and**

**Vacuum—**  
**American Compressor Works, 26 Cort-**  
**landt St.,** New York.

**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Crosby Steam Gage & Valve Co.,** Boston.  
**Deming Co.,** Salem, O.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**John H. McGowan Co.,** Cincinnati, O.

**Pumps—Copper—**  
**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Diaphragm—**  
**Barnes Mfg. Co.,** Mansfield, O.  
**Boston & Lockport Block Co.,** Boston.  
**Edson Mfg. Co.,** Boston, Mass.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**Union Hardware Co.,** Torrington, Ct.

**Pumps, Electric—**  
**Allentown Rolling Mills, Allentown, Pa.**  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.

**General Electric Co.,** Schenectady, N. Y.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Jeffrey Mfg. Co.,** Columbus, O.  
**John H. McGowan Co.,** Cincinnati, O.  
**Northern Electrical Mfg. Co.,** Madison,  
 Wis.

**Pumps, Elevator—**  
**Allentown Rolling Mills, Allentown, Pa.**  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Builders Iron Foundry, Providence, R. I.**  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**John H. McGowan Co.,** Cincinnati, O.

**Pumps, Elevator Bucket**

**and Purifying—**  
**Buhl Malleable Co.,** Detroit, Mich.  
**Cleveland Galvanizing Works, Cleveland.**  
**F. E. Myers & Bro.,** Ashland, O.  
**St. Joseph Pump & Mfg. Co.,** St. Joseph,  
 Mo.

**Pumps, Fire—**  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.

**Humphreys Mfg. Co.,** Mansfield, O.  
**F. E. Myers & Bro.,** Ashland, O.

**Pumps, Force—**

**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.  
**Flint & Walling Mfg. Co.,** Kendallville,  
 Ind.

**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Hess-Snyder Co.,** Massillon, O.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**McNab & Harlin Mfg. Co.,** 58 John St.,  
 New York.

**F. E. Myers & Bro.,** Ashland, O.  
**J. E. Porter Co.,** Ottawa, Ill.  
**Union Mfg. Co.,** New Britain, Ct.

**Pumps, Gas Engine Start-**

**ing—**  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.

**Pumps, Gauge Test—**

**American Steam Gauge & Valve Mfg.**  
**Co.,** Boston, Mass.  
**Walworth Mfg. Co.,** Boston, Mass.

**Pumps, Grouting, Sewerage,**

**Quarry—**

**Allis-Chalmers Co.,** Home Insurance  
 Bldg., Chicago, Ill.  
**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Buffalo Forge Co.,** Buffalo, N. Y.  
**Deming Co.,** Salem, O.  
**Edson Mfg. Co.,** Boston, Mass.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.

**Pumps, Ham Preserving—**

**Deming Co.,** Salem, O.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Silver Mfg. Co.,** Salem, O.

**Pumps, Horse-power—**

**Barnes Mfg. Co.,** Mansfield, O.  
**Deming Co.,** Salem, O.  
**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**F. E. Myers & Bro.,** Ashland, O.

**Pumps, Hydraulic—**

**Bethlehem Foundry & Machine Co.,** So.  
 Bethlehem, Pa.

**Pumps, Irrigation—**

**Allentown Rolling Mills, Allentown, Pa.**  
**Allis-Chalmers Co.,** Home Insurance  
 Bldg., Chicago, Ill.

**Barnes Mfg. Co.,** Mansfield, O.  
**E. W. Bliss Co.,** Brooklyn, N. Y.  
**Boston & Lockport Block Co.,** Boston,  
 Mass.

**Buffalo Forge Co.,** Buffalo, N. Y.  
**Builders Iron Foundry, Providence, R. I.**  
**H. W. Caldwell & Son Co.,** Western Ave.  
 and 17th St., Chicago, Ill.

**Charter Gas Engine Co.,** Sterling, Ill.  
**Deming Co.,** Salem, O.  
**Flint & Walling Mfg. Co.,** Kendallville,  
 Ind.

**Goulds Mfg. Co.,** Seneca Falls, N. Y.  
**Humphreys Mfg. Co.,** Mansfield, O.  
**John H. McGowan Co.,** Cincinnati, O.

**F. E. Myers & Bro.,** Ashland, O.  
**Power Specialty Co.,** 125 Liberty St.,  
 New York.

**St. Joseph Pump & Mfg. Co.,** St. Joseph,  
 Mo.

**Weber Gas & Gasoline Engine Co.,** Kan-  
 sas City, Mo.

**Pumps, Lift—**

Barnes Mfg. Co., Mansfield, O.  
 Berger Mfg. Co., Canton, O.  
 Flint & Walling Mfg. Co., Kendallville, Ind.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Hess-Snyder Co., Massillon, O.  
 Humphries Mfg. Co., Mansfield, O.  
 Aug. Metz, 128-138 Mott St., New York.  
 F. E. Myers & Bro., Ashland, O.  
 J. E. Porter Co., Ottawa, Ill.  
 Union Mfg. Co., New Britain, Ct.

**Pumps, Marl—**

Rand Drill Co., 128 Broadway, New York.

**Pumps, Mine (Cylinders and Heads)—**

Allentown Rolling Mills, Allentown, Pa.  
 Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 American Air Compressor Works, 26 Cortlandt St., New York.  
 Barnes Mfg. Co., Mansfield, O.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Builders Iron Foundry, Providence, R. I.  
 Deming Co., Salem, O.  
 Flint & Walling Mfg. Co., Kendallville, Ind.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 F. E. Myers & Bro., Ashland, O.  
 Rand Drill Co., 128 Broadway, New York.  
 Weber Gas & Gasoline Engine Co., Kansas City, Mo.

**Pumps, Natural Gas—**

Norwalk Iron Works Co., So. Norwalk, Ct.

**Pumps, Oil—**

Barnes Mfg. Co., Mansfield, O.  
 S. F. Bowser & Co., Fort Wayne, Ind.  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Builders Iron Foundry, Providence, R. I.  
 Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 Pratt & Whitney Co., Hartford, Ct.

**Pumps, Oil, Machine—**

Brown & Sharpe Mfg. Co., Providence, R. I.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Builders Iron Foundry, Providence, R. I.  
 Pratt & Whitney Co., Hartford, Ct.

**Pumps, Plumbers' and Gas****Fitters—**

Barnes Mfg. Co., Mansfield, O.  
 Deming Co., Salem, O.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**Pumps, Power—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 Barnes Mfg. Co., Mansfield, O.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Charter Gas Engine Co., Sterling, Ill.  
 Deming Co., Salem, O.  
 Richard Dudgeon, 24-26 Columbia St., New York.  
 Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 John H. McGowan Co., Cincinnati, O.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

F. E. Myers & Bro., Ashland, O.  
 Rock River Machine Co., Janesville, Wis.  
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
 Watson-Stillman Co., 204-210 East 43d St., New York.  
 Weber Gas & Gasoline Engine Co., Kansas City, Mo.

**Pumps, Pressure—**

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

**Pumps, Quarry—**

(See Pumps, Grouting, Sewerage and Quarry.)

**Pumps, Rotary—**

(See Pumps, Centrifugal.)

**Pumps, Self Measuring—**

S. F. Bowser & Co., Ft. Wayne, Ind.  
 Enterprise Mfg. Co., Philadelphia, Pa.

**Pumps, Sewerage—**

(See Pumps, Grouting and Sewerage.)

**Pumps, Ship and Deck—**

Barnes Mfg. Co., Mansfield, O.  
 Boston & Lockport Block Co., Boston.  
 Deming Co., Salem, O.  
 Edson Mfg. Co., Boston, Mass.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Humphries Mfg. Co., Mansfield, O.  
 F. E. Myers & Bro., Ashland, O.  
 Union Mfg. Co., New Britain, Ct.

**Pumps, Siphon—**

Barnes Mfg. Co., Mansfield, O.  
 Humphries Mfg. Co., Mansfield, O.  
 John S. Leng's Son & Co., 4 Fletcher St., New York.  
 F. E. Myers & Bro., Ashland, O.

**Pumps, Spraying—**

Barnes Mfg. Co., Mansfield, O.  
 Berger Mfg. Co., Canton, O.  
 Deming Co., Salem, O.  
 Flint & Walling Mfg. Co., Kendallville, Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.  
 Grand Rapids Hardware Co., Grand Rapids, Mich.

Hess-Snyder Co., Massillon, O.  
 Humphries Mfg. Co., Mansfield, O.  
 F. E. Kohler & Co., Canton, O.  
 F. E. Myers & Bro., Ashland, O.  
 J. E. Porter Co., Ottawa, Ill.  
 Rome Mfg. Co., Rome, N. Y.  
 Union Mfg. Co., New Britain, Ct.  
 Whitman & Barnes Mfg. Co., Akron, O.

**Pumps, Steam—**

Alberger Condenser Co., 95 Liberty St., New York.  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Builders Iron Foundry, Providence, R. I.  
 A. D. Cook, Lawrenceburg, Ind.  
 Deming Co., Salem, O.  
 Filer & Stowell Co., Milwaukee, Wis.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
 Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.  
 Mason Regulator Co., Boston, Mass.  
 Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.  
 Rock River Machine Co., Janesville, Wis.  
 Watson-Stillman Co., 204-210 East 43d St., New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.

Charles Behlen, 72 Trinity Pl., New York.

Contractors' Equipment Co., Betz Bldg., Philadelphia, Pa.

Crane Co., Chicago, Ill.

Thomas F. Conard, 119 So. 4th St., Philadelphia, Pa.

A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.

Benj. F. Kelley & Son, 91 Liberty St., New York.

Lovegrove & Co., Inc., 143-145 N. 3d St., Philadelphia, Pa.

McDowell & Co., Pittsburgh, Pa.

John H. McGowan Co., Cincinnati, O.

Mertes Machinery Co., Milwaukee, Wis.

Rossiter, McGovern & Co., 141 Broadway, New York.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

R. E. Sherman & Co., Boston, Mass.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

E. H. Wachs Co., 158 Indiana St., Chicago, Ill.

Whitehead Machinery Co., Davenport, Ia.

E. O. Williams, 63 So. Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit, Mich.

**Pumps, Steam Jet—**

E. W. Vanduzen Co., Cincinnati, O.

N. A. Watson, Erie, Pa.

**Pumps, Tank—**

Barnes Mfg. Co., Mansfield, O.

E. W. Bliss Co., Brooklyn, N. Y.

S. F. Bowser & Co., Ft. Wayne, Ind.

Buffalo Forge Co., Buffalo, N. Y.

A. D. Cook, Lawrenceburg, Ind.

Deming Co., Salem, O.

Julian D'Este Co., Boston, Mass.

Goulds Mfg. Co., Seneca Falls, N. Y.

Hess-Snyder Co., Massillon, O.

Humphries Mfg. Co., Mansfield, O.

John H. McGowan Co., Cincinnati, O.

F. E. Myers & Bro., Ashland, O.

J. E. Porter Co., Ottawa, Ill.

Union Mfg. Co., New Britain, Ct.

**Pumps, Trench—**

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Boston, Mass.

Edson Mfg. Co., Boston, Mass.

Humphries Mfg. Co., Mansfield, O.

**Pump Supplies, Beer—**

H. O. Canfield, Bridgeport, Ct.

**Pumps, Vacuum—**

Alberger Condenser Co., 95 Liberty St., New York.

American Air Compressor Works, 26 Cortlandt St., New York.

Charles D. Carpenter, Brooklyn, N. Y.

**Pumps, Varnish and Paint Oil—**

S. F. Bowser & Co., Ft. Wayne, Ind.

**Pumps, Vault and Cess-pool—**

Barnes Mfg. Co., Mansfield, O.

Edson Mfg. Co., Boston, Mass.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.

**Pumps, Water Works—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

E. W. Bliss Co., Brooklyn, N. Y.

Builders' Iron Foundry, Providence, R. I.

Deming Co., Salem, O.

Goulds Mfg. Co., Seneca Falls, N. Y.

Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Southwark Foundry & Machine Co., Washington Ave. & 5th St., Phila.

William Tod Co., Youngstown, O.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Pumps, Windmill—**

Barnes Mfg. Co., Mansfield, O.

A. D. Cook, Lawrenceburg, Ind.

Deming Co., Salem, O.

Flint & Walling Mfg. Co., Kendallville, Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.

Hess-Snyder Co., Massillon, O.

Humphries Mfg. Co., Mansfield, O.

F. E. Myers & Bro., Ashland, O.

J. E. Porter Co., Ottawa, Ill.

Union Mfg. Co., New Britain, Ct.

**Punches, Automatic—**

Goodell-Fratt Co., Greenfield, Mass.

**Punches and Dies, Compound—**

American Watch Tool Co., Waltham, Mass.

**Punches and Dies, Ship-yard—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

Cleveland Punch & Shear Works Co., Cleveland, O.

**Punches and Shears—**

Beaudry & Co., Boston, Mass.

**Punches, Belt—**

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Charles Morrill, 277 Broadway, N. Y.

Otis A. Smith, Rockfall, Ct.

Smith & Hemenway Co., 236 Broadway, New York.

Springfield Machine Screw Co., Springfield, Mass.

**Punches, Bill Centering—**

Goodell Mfg. Co., Greenfield, Mass.

**Punches, Cattle—**

Fred J. Meyers Mfg. Co., Hamilton, O.

**Punches, Check—**

Hogson & Pettis Mfg. Co., New Haven, Ct.

**Punches, Conductor, Ticket, &c.—**

American Railway Supply Co., 24 Park Place, New York.

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Fred J. Meyers Mfg. Co., Hamilton, O.

Smith & Egge Mfg. Co., Bridgeport, Ct.

R. Woodman Mfg. & Supply Co., Boston.

**Punches, Drive—**

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Charles Buck, Millbury, Mass.

Buck Bros., Millbury, Mass.



Cronk & Carrier Mfg. Co., Elmira, N. Y.  
 Eyelet Tool Co., Boston, Mass.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Hurwood Mfg. Co., Bridgeport, Ct.  
 Keystone Mfg. Co., Buffalo, N. Y.  
 H. H. Mayhew Co., Shelburne Falls, Mass.

Ney Mfg. Co., Canton, O.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sawyer Tool Mfg. Co., Fitchburg, Mass.  
 Springfield Machine Screw Co., Springfield, Mass.

L. S. Starrett Co., Athol, Mass.  
 Transue & Williams Co., Alliance, O.  
 Tuck Mfg. Co., Brockton, Mass.

**Punches, Embossing—**  
 R. Woodman Mfg. & Supply Co., Boston.

**Punches, Eyelet and Fastener—**

Eyelet Tool Co., Boston, Mass.  
 Jos. F. McCoy Co., 157 Chambers St., New York.

**Punches, Hand and Power—**

Adriance Machine Works, Brooklyn, N. Y.  
 Alliance Machine Co., Alliance, O.  
 American Lock Nut Co., Oregon, Ill.

Beaudry & Co., Boston, Mass.  
 Bertsch & Co., Cambridge City, Ind.  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Ricknell Hardware Co., Janesville, Wis.  
 Bignall & Keeler Mfg. Co., Edwardsville, Ill.

E. W. Bliss Co., Brooklyn, N. Y.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.  
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Dubuque Machine Concern, Dubuque, Ia.  
 Richard Dudgeon, 24-26 Columbia St., New York.

Charles G. Eckstein, 249 Centre St., N. Y.  
 Erdle & Schenck, Rochester, N. Y.  
 Eyelet Tool Co., Boston, Mass.

Fox Machine Co., Grand Rapids, Mich.  
 Globe Machine & Stamping Co., Cleveland, O.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

A. L. Henderer's Sons, Wilmington, Del.  
 W. H. Hildard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.  
 R. E. Kidder, Worcester, Mass.

E. Konigslow Stamping & Tool Works, Cleveland, O.  
 J. H. Lingle, Bellefonte, Pa.

Long & Allstatler Co., Hamilton, O.  
 John Loyd Co., 558 Water St., New York.

McDougall & Potter Co., 602 W. 55th St., New York.

C. S. Mersick & Co., New Haven, Ct.  
 Chas. Morrill, 277 Broadway, New York.

Frank Mossberg & Co., Attleboro, Mass.  
 National Fulton Brass Mfg. Co., Detroit, Mich.

New Doty Mfg. Co., Janesville, Wis.  
 Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

George A. Ohl & Co., Newark, N. J.

Henry Pels & Co., 66 Broad St., N. Y.

Pittsburgh Mfg. Co., Pittsburgh, Pa.  
 Pratt & Whitney Co., Hartford, Ct.  
 Rock River Machine Co., Janesville, Wis.  
 Roversford Foundry & Machine Co., Roversford, Pa.

Wm. Sellers & Co., Inc., Philadelphia.  
 George B. Sennett Co., Youngstown, O.

Sigourney Tool Co., Hartford, Ct.  
 Standard Machinery Co., Providence, R. I.

Union Mfg. & Specialty Co., Buffalo, N. Y.

Watson-Stillman Co., 204-210 East 43d St., New York.

Wickes Bros., Saginaw, Mich.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.

Williams, White & Co., Moline, Ill.  
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

W. C. Young Mfg. Co., Worcester, Mass.

**MERCHANTS.**  
 Geo. E. Affleck, 109 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.  
 Barclay M. Everson, Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, 85 Liberty St., New York.

J. J. McCabe, 14 Dey St., New York.  
 Jos. F. McCoy Co., 157 Chambers St., New York.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.

**Punches, Hand, Tube and Manhole—**

Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cincinnati, O.

A. L. Henderer's Sons, Wilmington, Del.  
 Hilles & Jones Co., Wilmington, Del.

Long & Allstatler Co., Hamilton, O.  
 New Doty Mfg. Co., Janesville, Wis.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wickes Bros., Saginaw, Mich.

**Punches, Hydraulic—**  
 Alliance Machine Co., Alliance, O.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.  
 Curry & Vannan, Danville, Pa.

Richard Dudgeon, 24-26 Columbia St., New York.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.

Fischer Foundry & Machine Co., Pittsburgh, Pa.

A. L. Henderer's Sons, Wilmington, Del.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

George B. Sennett Co., Youngstown, O.

United Engineering & Foundry Co., Pittsburgh, Pa.

Watson-Stillman Co., 204-210 East 43d St., New York.

Wickes Bros., Saginaw, Mich.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Punches, Multiple—**

Adriance Machine Works, Brooklyn, N. Y.  
E. W. Bliss Co., Brooklyn, N. Y.  
Cincinnati Punch & Shear Co., Cincinnati, O.  
Cleveland Punch & Shear Works Co., Cleveland, O.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Falkenau-Sinclair Mach. Co., 109 N. 23d St., Philadelphia, Pa.  
Hilles & Jones Co., Wilmington, Del.  
Long & Allstatter Co., Hamilton, O.  
New Doty Mfg. Co., Janesville, Wis.  
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
George A. Ohl & Co., Newark, N. J.  
Wm. Sellers & Co., Inc., Philadelphia.  
Williams, White & Co., Moline, Ill.

**Punches, Paper—**

Eyelet Tool Co., Boston, Mass.  
Chas. Morrill, 277 Broadway, New York.  
R. Woodman Mfg. & Supply Co., Boston, Mass.

**Punches, Saw—**

Henry Diston & Sons, Philadelphia, Pa.

**Punches, Screw—**

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.  
A. L. Henderer's Sons, Wilmington, Del.

**Punches, Spiral Shear—**

Pratt & Whitney Co., Hartford, Ct.

**Punches, Spring—**

Eyelet Tool Co., Boston, Mass.  
John H. Graham & Co., 113 Chambers St., New York.  
Fred J. Meyers Mfg. Co., Hamilton, O.  
Louis Sacks Iron Foundry, Newark, N. J.  
Smith & Egge Mfg. Co., Bridgeport, Ct.  
Springfield Machine Screw Co., Springfield, Mass.

**Punches, Stock Marking—**

M. J. Bartlett & Son, 196 S. Clark St., Chicago, Ill.

**Punching Presses—**

(See Presses.)

**Punching Machines, I-Beam—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Cincinnati Punch & Shear Co., Cincinnati, O.  
Cleveland Punch & Shear Works Co., Cleveland, O.  
Richard Dudgeon, 24-26 Columbia St., New York.  
Chas. G. Eckstein, 247 Centre St., N. Y.  
A. L. Henderer's Sons, Wilmington, Del.  
Hilles & Jones Co., Wilmington, Del.  
Long & Allstatter Co., Hamilton, O.  
New Doty Mfg. Co., Janesville, Wis.  
Niagara Machine & Tool Works, Buffalo, N. Y.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Henry Pels & Co., 66 Broad St., N. Y.  
Wm. Sellers & Co. (Inc.), Philadelphia.  
George B. Bennett Co., Youngstown, O.  
Watson-Stilman Co., 224-210 East 43d St., New York.  
Williams, White & Co., Moline, Ill.

**Punching Metal—**

Eastern Bolt & Nut Co., Providence, R. I.  
New England Specialty Co., Easton, Mass.

Wilson & Smith, Worcester, Mass.

**Purifiers, Feed Water—**

Dodge Mfg. Co., Mishawaka, Ind.  
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

National Pipe Bending Co., New Haven, Ct.

F. L. Patterson & Co., 26 Cortland St., New York.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.

Warren Webster & Co., Camden, N. J.

Whitlock Coil Pipe Co., Hartford, Ct.

Wickes Bros., Saginaw, Mich.

**Purifying and Softening Systems, Water—**

(See Water Softening and Purifying Systems.)

**Purifying Pumps—**

(See Pumps, Elevator Bucket and Purifying.)

**Purifying Systems, Water—**

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

**Push Buttons, Carts, Plates—**

(See Buttons, Carts, Plates.)

**Pushers, Car—**

Boston & Lockport Block Co., Lockport, N. Y.

Buhl Malleable Co., Detroit, Mich.

Osborn Mfg. Co., Cleveland, O.

R. Woodman Mfg. & Supply Co., Boston.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Pushers, Coke Oven—**

Brown Hoisting Machinery Co., Cleveland, O.

**Pushes, Electric Bell—**

W. R. Hartigan, Collinsville, Ct.  
Reading Hardware Co., Reading, Pa.

**Putty, Glaziers—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.

John Lucas & Co., Race and Fourth Sts., Philadelphia, Pa.

Eugene E. Nice, 272-274 So. 2d St., Philadelphia, Pa.

**Putty, Stove—**

Cleveland Stone Co., Cleveland, O.

Wm. Connors Paint Mfg. Co., Troy, N. Y.

S. Obermayer Co., Cincinnati, O.

**Pyrometers**

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

Edward Brown, 311 1-2 Walnut St., Philadelphia, Pa.

Uehling-Decker Co., Passaic, N. J.

**MERCHANTS.**

Eimer & Amend, 235 3d Ave., New York.

**Pyrometers, Recording—**

Bristol Co., Waterbury, Ct.

Edward Brown, 311 1-2 Walnut St., Philadelphia, Pa.

Uehling-Decker Co., Passaic, N. J.

**Quadrants, Brass Skylight—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Quarry Bars—**  
Ingersoll-Sergeant Drill Co., Havemeyer Building, New York.  
McKiernan Drill Co., 120 Liberty St., N. Y.

**Quarry Pumps—**  
(See Pumps, Grouting and Quarry.)

**Quartering Machines—**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Wm. Sellers & Co. (Inc.), Philadelphia.

**Quota—**  
Blacklock Foundry, So. Pittsburg, Tenn.  
John C. Kupferle, St. Louis, Mo.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

Pleuger & Henger Mfg. Co., St. Louis.  
Reading Hardware Co., Reading, Pa.  
A. C. Williams, Ravenna, O.

**Rabbit and Butt Gauges—**  
(See Gauges, Butt and Rabbit.)

**Rack Cutters, Automatic—**  
(See Cutters, Automatic Rack.)

**Rack Cutting Machines, Automatic—**  
Gould & Eberhardt, Newark, N. J.

**Racks and Rings, Towel—**  
Federal Mfg. Co., Cleveland, O.  
Kilbourne Mfg. Co., Troy, N. Y.  
A. J. Phillips Co., Fenton, Mich.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.  
Raymond Mfg. Co., Corry, Pa.  
Spencer Wire Co., Worcester, Mass.  
Taplin Mfg. Co., New Britain, Ct.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

Western Wire Goods Co., Buffalo, N. Y.  
**Racks, Bakery—**  
Parker Wire Goods Co., Worcester, Mass.  
Van Dorn Iron Works Co., Cleveland, O.  
Wire Goods Co., Worcester, Mass.

**Racks, Bicycle—**  
(See Stands and Holders, Bicycle.)  
**Racks, Brass—**  
Boston Gear Works, Boston, Mass.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Racks, Card, Book and Paper—**  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Western Wire Goods Co., Buffalo, N. Y.

**Racks, Clothes—**  
Federal Mfg. Co., Cleveland, O.  
Hill Dryer Co., Worcester, Mass.  
A. J. Phillips Co., Fenton, Mich.

**Racks, Cut Metal—**  
R. D. Nuttall Co., Pittsburgh, Pa.

**Racks, Display—**  
City Forge & Iron Works, Dayton, O.

**Racks, Fruit Steaming—**  
Sidney Shepard & Co., Buffalo, N. Y.

**Racks, Hat and Coat—**  
Kilbourne Mfg. Co., Troy, N. Y.  
Raymond Mfg. Co., Ltd., Corry, Pa.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Racks, Pew, Book—**  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Union Mfg. Co., New Britain, Ct.

**Racks, Railroad, Coach—**  
Emerson P. Turner Mfg. Co., Norwich, Ct.

**Racks, Steel Goods—**  
American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Fort Madison, Ia.  
(See also Brackets, Shovel, Hoe, Rake Fork, &c.)

**Racks, Towel—**  
(See Racks and Rings.)

**Radiator Screens—**  
(See Screens, Radiator.)

**Radiators, Disc, for Automobiles—**

Whitlock Coil Pipe Co., Hartford, Ct.

**Radiators, Electric—**  
United Electric Heating Co., Detroit, Mich.

**Radiators, Gas and Oil—**

Wm. M. Crane Co., 131 Broadway, N. Y.

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

**Radiators, Steam and Hot Water—**

Jarecki Mfg. Co., Erie, Pa.

**Rafter Brackets, Grapples—**  
(See Brackets, Grapples.)

**Rail Benders, Bonds, Drills—**  
(See Benders, Bonds, Drills.)

**Rail, Door and Barn Door—**

Bridgeport Brass Co., Bridgeport, Ct.

Chicago Spring Butt Co., Chicago, Ill.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Griffin Mfg. Co., Erie, Pa.

John C. Kupferle, St. Louis, Mo.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

McKenna Bros. Brass Co., Pittsburgh, Pa.

McKinney Mfg. Co., Allegheny, Pa.

Midland Iron Works, Racine, Wis.

National Mfg. Co., Sterling, Ill.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Plum & Atwood Mfg. Co., Waterbury, Ct.

J. E. Porter Co., Ottawa, Ill.

Randolph-Clowes Co., Waterbury, Ct.

Reading Hardware Co., Reading, Pa.

Richards Mfg. Co., Aurora, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers, New York.

Safety Door Hanger Co., Ashland, O.

Sargent & Co., 151 Leonard St., N. Y.

Scovill Mfg. Co., Waterbury, Ct.

Stanley Works, New Britain, Ct.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

Union Mfg. Co., New Britain, Ct.

Wilcox Mfg. Co., Aurora, Ill.

**Railing and Brackets, Office, Counter, &c.—**

Wm. Bayley & Sons Co., Milwaukee, Wis.

Buffalo Wire Works Co., Buffalo, N. Y.

City Forge & Iron Works, Dayton, O.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Donovan Wire & Iron Co., Toledo, O.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.  
Forest City Steel & Iron Co., Cleveland, O.  
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.  
Glen Mfg. Co., Ellwood City, Pa.  
Howard & Morse, 45 Fulton St., N. Y.  
W. N. Kruger & Co., Pittsburgh, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
Fred J. Meyers Mfg. Co., Hamilton, O.  
Murdock Corporation, Boston, Mass.  
National Iron & Wire Co., Cleveland, O.  
Stewart Iron Works, Cincinnati, O.  
W. S. Tyler Co., Cleveland, O.  
Van Dorn Iron Works Co., Cleveland, O.  
Wright Wire Co., Worcester, Mass.

**Railings, Area—**  
(See Iron Work, Builders')

**Railroad Cars, Forgings, &c.—**

(See Cars, Forgings, &c.)

**Railroad Equipment—**

American Valve & Meter Co., Cincinnati, O.  
Atlas Car & Mfg. Co., Cleveland, O.  
Arthur Koppel, 66-68 Broad St., N. Y.  
A. Lechner & Sons Rope Co., St. Louis.  
May & Spaulding, Atlanta, Ga.  
Poulter & Co., Bullitt Bldg., Philadelphia, Pa.  
Wellman-Seaver-Morgan Co., Cleveland, O.

**MERCHANTS.**

American Bureau of Inspection & Tests, Monadnock Bldg., Chicago, Ill.  
Apex Equipment Co., 11 Broadway, N. Y.  
Contractors' Equipment Co., Betz Bldg., Philadelphia, Pa.  
Justice Cox, Jr., & Co., Bullitt Building, Philadelphia, Pa.  
A. V. Kaiser & Co., 222 S. 3d St., Philadelphia, Pa.  
Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.  
Richardson & Co., Inc., Pittsburgh, Pa.  
Wonham & Magor, 29 Broadway, N. Y.  
Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Railroad Equipment, Electric—**

General Electric Co., Schenectady, N. Y.  
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**Railroads—**

Chicago, Milwaukee & St. Paul Railway, Old Colony Bldg., Chicago, Ill.  
Illinois Central Railroad Co., 606 Central Station, Chicago, Ill.  
New York Central & Hudson River R. R., Grand Central Station, New York.  
Southern Railway & Mobile & Ohio R. R., Washington, D. C.

**Railroads, Cable—**

(See Conveying Machinery.)

**Railroad Shop Wood Working Machinery—**

(See Cars, Shop, Wood Working Machinery.)

**Railroad, Street, Special Work—**

Barbour-Stockwell Co., Cambridgeport, Mass.

**Railroad Unloaders—**

(See Unloaders, Railroad.)

**Rails and Hangers, Suspended—**

Ney Mfg. Co., Canton, O.  
Trenton Iron Co., Trenton, N. J.

**Rail, Sash—**

Sargent & Co., 151 Leonard St., N. Y.

**Rails, Dash—**

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Rails, Girder—**

Barbour-Stockwell Co., Cambridgeport, Mass.

**Rails, Light—**

American Steel Hoop Co., Pittsburgh, Pa.  
Atlas Car & Mfg. Co., Cleveland, O.  
Donaldson & Newton, 421 Chestnut St., Philadelphia, Pa.  
Jones & Laughlin Steel Co., Pittsburgh.  
Republic Iron & Steel Co., Chicago, Ill.  
Union Rail Co., Huntington, W. Va.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
J. H. Hillman & Son, Pittsburgh, Pa.  
George T. Johnson & Co., Pennsylvania Bldg., Philadelphia, Pa.  
Arthur Koppel, 66 Broad St., New York.  
Henry Lewis & Co., 26 S. 15th St., Philadelphia, Pa.  
F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
Pittsburgh Rail Supply Co., Pittsburgh, Pa.  
Shook & Fletcher, Birmingham, Ala.  
Union Rail Co., Huntington, W. Va.  
Wonham & Magor, 29 Broadway, N. Y.  
Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Rails, Old—**

(See Material, Old.)

**Rails, Relaying—**

American Bureau of Inspection & Tests, Monadnock Bldg., Chicago, Ill.  
Apex Equipment Co., 11 Broadway, N. Y.  
Contractors' Equipment Co., Betz Bldg., Philadelphia, Pa.  
Justice Cox, Jr., & Co., Ltd., Bullitt Bldg., Philadelphia, Pa.  
Donaldson & Newton, 421 Chestnut St., Philadelphia, Pa.  
J. H. Hillman & Son, Pittsburgh, Pa.  
Isaac Joseph Iron Co., Cincinnati, O.  
Jos. Joseph & Bros. Co., Cincinnati, O.  
Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.  
Jno. Leonard & Co., 220 Broadway, New York.  
Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.  
May & Spaulding, Atlanta, Ga.  
F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
Pittsburgh Rail Supply Co., Pittsburgh, Pa.  
Poulter & Co., Bullitt Bldg., Philadelphia, Pa.  
Richardson & Co., Inc., Pittsburgh, Pa.  
M. Samuel & Sons, Brooklyn, N. Y.  
Shook & Fletcher, Birmingham, Ala.  
Union Rail Co., Huntington, W. Va.  
Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Rails, Steel—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Barbour-Stockwell Co., Cambridgeport,  
 Mass.  
 Thomas P. Conard, 119 So. 4th St., Phil-  
 adelphia, Pa.  
 Donaldson & Newton, 421 Chestnut St.,  
 Philadelphia, Pa.  
 Arthur Koppel, 66-68 Broad St., N. Y.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
 Bassett-Cresley Co., Cleveland, O.  
 Bourne-Fuller Co., Cleveland, O.  
 Justice Cox, Jr. & Co., Bullitt Bldg.,  
 Philadelphia, Pa.  
 J. H. Hillman & Son, Pittsburgh, Pa.  
 C. B. Houston & Co., Girard Trust Bldg.,  
 Philadelphia, Pa.  
 George T. Johnson & Co., Pennsylvania  
 Bldg., Philadelphia, Pa.  
 Ernest Law & Co., 15th and Market Sts.,  
 Philadelphia, Pa.  
 C. W. Leavitt & Co., 15 Cortlandt St.,  
 New York.  
 James Lee & Co., 76 William St., N. Y.  
 Henry Lewis & Co., 26 So. 15th St., Phil-  
 adelphia, Pa.  
 John B. Newkirk & Co., 15th and Market  
 Sts., Philadelphia, Pa.  
 F. R. Phillips & Sons Co., Harrison  
 Bldg., Philadelphia, Pa.  
 Pierson & Co., 29 Broadway, New York.  
 Pittsburgh Rail Supply Co., Pittsburgh,  
 Pa.

Richardson & Co. Inc., Pittsburgh, Pa.  
 Wheeler, Mifflin & Co., Fidelity Bldg.,  
 Philadelphia, Pa.  
 Mason G. Worth & Co., Real Estate  
 Trust Bldg., Philadelphia, Pa.

**Railways, Industrial—**

Atlas Car & Mfg. Co., Cleveland, O.  
 C. W. Hunt Co., West New Brighton,  
 N. Y.  
 Arthur Koppel, 150 Nassau St., N. Y.  
 New Jersey Foundry & Machine Co., 9-15  
 Murray St., New York.  
 B. F. Sturtevant Co., Boston, Mass.

**Railways, Marine—**

Poole Engineering & Machine Co., Bal-  
 timore, Md.

**Raisin Seeders—**

(See Seeders, Raisin.)

**Rake Machinery—**

(See Fork, Rake and Hoe Machinery.)

**Rakes, Asphalt—**

American Fork & Hoe Co., Cleveland, O.  
 Withington & Cooley Mfg. Co., Jackson,  
 Mich.

**Rakes, Ballast and Gravel—**

American Fork & Hoe Co., Cleveland, O.  
 Withington & Cooley Mfg. Co., Jackson,  
 Mich.

**Rakes, Garden—**

American Fork & Hoe Co., Cleveland, O.  
 Continental Tool Co., Frankfort, N. Y.  
 Cronk & Carrier Mfg. Co., Elmira, N. Y.  
 Iowa Farming Tool Co., Fort Madison, Ia.  
 F. E. Kohler & Co., Canton, O.  
 Piqua Handle & Mfg. Co., Piqua, O.  
 Withington & Cooley Mfg. Co., Jackson,  
 Mich.

**Rakes, Hay, Horse—**

Long & Allstatter Co., Hamilton, O.

**Rakes, Lawn—**

American Fork & Hoe Co., Cleveland, O.  
 Coldwell Lawn Mower Co., Newburgh, N. Y.  
 Cronk & Carrier Mfg. Co., Elmira, N. Y.  
 Iowa Farming Tool Co., Fort Madison, Ia.  
 F. E. Kohler & Co., Canton, O.  
 Ney Mfg. Co., Canton, O.  
 Piqua Handle & Mfg. Co., Piqua, O.  
 Withington & Cooley Mfg. Co., Jackson,  
 Mich.

**Rakes, Wood, Hand—**

American Fork & Hoe Co., Cleveland, O.  
 Continental Tool Co., Frankfort, N. Y.

**Rammers, Foundry—**

Brown & Sharpe Mfg. Co., Providence,  
 R. I.

Maywood Fdy. & Machine Co., Chicago.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

Philadelphia Pneumatic Tool Co., 1038

Ridge Ave., Philadelphia, Pa.

**Rams, Hydraulic—**

Barnes Mfg. Co., Mansfield, O.

Deming Co., Salem, O.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphreys Mfg. Co., Mansfield, O.

F. E. Myers & Bro., Ashland, O.

Union Mfg. Co., New Britain, Ct.

R. D. Wood & Co., 400 Chestnut St.,  
 Philadelphia, Pa.

**Ranges—**

(See Stoves, Wood and Coal.)

**Ranges, Combination Coal**

**and Gas—**

Schneider & Trenkamp Div., Am. Stove

Co., Cleveland, O.

**Ranges, Hotel Gas—**

Schneider & Trenkamp Div., Am. Stove

Co., Cleveland, O.

**Ranges, Steel—**

Hess-Snyder Co., Massillon, O.

Schneider & Trenkamp Div., Am. Stove

Co., Cleveland, O.

Star Shovel & Range Co., Vincennes, Ind.

**Rasps and Files—**

(See Files and Rasps.)

**Rasps, Horse Tooth—**

Henry Disston & Sons, Philadelphia, Pa.

Heller Bros. Co., Newark, N. J.

Nicholson File Co., Providence, R. I.

**Ratchet Die Stocks—**

(See Die Stocks, Ratchet.)

**Ratchet Drills, Pawls—**

(See Drills, Pawls.)

**Ratchet Screw Drivers—**

(See Drivers, Screw, Ratchet.)

**Ratchets, Drills, Tap**

**Wrench, &c.**

Keystone Mfg. Co., Buffalo, N. Y.

Pratt & Whitney Co., Hartford, Ct.

Springfield Machine Screw Co., Spring-

field, Mass.

Walworth Mfg. Co., Boston, Mass.

**Ratchets, Universal—**

Armstrong Bros. Tool Co., 617 Austin

Ave., Chicago, Ill.

**Ratchets, Wire Fence—**

(See Stretchers, Fence and Wire.)

**Rattlers, Foundry—**

(See Barrels, Tumbling.)

**Rat Traps—**

(See Traps.)

**Rawhide Belting. Belt**

**Lacing—**

(See Belting, Belt Lacing.)

**Razor Hones, Paste, Strops—**

(See Hones, Paste, Strops.)

**Razors—**

Charles Buck, Millbury, Mass.

Buck Bros., Millbury, Mass.

Fox Cutlery Co., Dubuque, Iowa.

Schatt & Morgan Cutlery Co., Titusville, Pa.

A. L. Silberstein, 459-461 Broadway, N. Y.

Smith & Hemenway Co., 236 Broadway, New York.

Wiebusch & Hilger, 9-15 Murray St., New York.

**Razors, Safety—**

A. L. Silberstein, 459-461 Broadway, N. Y.

**Razor Strop Hardware—**

M. S. Brooks & Sons, Chester, Ct.

**Reamer Grinders, Holders.**

**Wrenches—**

(See Grinders, Holders, Wrenches.)

**Real Estate—**

(See Manufacturing Sites.)

**Reamers—**

Faird Machinery Co., Pittsburgh, Pa.

Braunsdorf-Mueller Co., Elizabeth, N. J.

Brown & Sharpe Mfg. Co., Providence, R. I.

Buck Bros., Millbury, Mass.

Charles Buck, Millbury, Mass.

Butterfield & Co., Derby Line, Vt.

S. W. Card Mfg. Co., Mansfield, O.

C. B. Chadwick & Co., Portsmouth, N. H.

Cincinnati Screw & Tap Co., Cincinnati, O.

Cleveland Twist Drill Co., Cleveland, O.

Crane Co., Chicago, Ill.

Detroit Twist Drill Co., Detroit, Mich.

Etna Mfg. Co., 253 Broadway, New York.

Gay & Ward, Athol, Mass.

J. M. King & Co., Waterford, N. Y.

H. H. Mayhew Co., Shelburne Falls, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Niles-Bement-Pond Co., 135-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

Reading Machine & Tool Co., Reading, Pa.

E. F. Reece Co., Greenfield, Mass.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

Standard Tool Co., Cleveland, O.

Stow Flexible Shaft Co., 28th and Callowhill Sts., Philadelphia, Pa.

Tuck Mfg. Co., Brockton, Mass.

Walworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.

Whitman & Barnes Mfg. Co., Akron, O.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Reamers, Adjustable—**

C. B. Chadwick & Co., Portsmouth, N. H.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

John M. Rogers Boat, Gauge & Drill Works, Gloucester City, N. J.

**Reamers, Belt—**

Billings & Spencer Co., Hartford, Ct.

**Reamers, Pipe—**

(See Taps and Reamers, Pipe.)

**Reaming Machines—**

(See Tapping and Reaming Machines.)

**Receivers, Air—**

L. O. Koven & Bro., 50 Cliff St., N. Y.

McKiernan Drill Co., 120 Liberty St., New York.

Northern Engineering Works, Detroit, Mich.

Pedrick & Ayer Co., 87 Liberty St., N. Y.

Wm. B. Pollock Co., Youngstown, O.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Receivers, Ash—**

Taplin Mfg. Co., New Britain, Ct.

**Receivers, Gas—**

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Reckoning Machines—**

Kouff & Esser Co., 127 Fulton St., N. Y.

**Recorders, Cash Auto-**

**graph—**

Hough Cash Recorder Co., Indian Orchard, Mass.

**Recorders, Steam, Speed—**

(See Indicators, Steam, Speed.)

**Recorders, Time—**

C. Nanz & Co., 127 Duane St., New York.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Simplex Time Recorder Co., Gardner, Mass.

**Recording Instruments.**

**Temperature—**

Bristol Co., Waterbury Ct.

Edward Brown, 311 Walnut St., Philadelphia, Pa.

**Reducers, Conductor—**

Garry Iron & Steel Co., Cleveland, O.

**Reducers, Hose—**

(See Hose Attachments.)

**Reducing Machines, Rotary—**

Standard Machinery Co., Providence, R. I.

**Reducing Rings, Valves—**

(See Rings, Valves.)

**Reels, Chalk Line—**

R. Bliss Mfg. Co., Pawtucket, R. I.

W. E. Hartigan, Collinsville, Ct.

Stanley Rule & Level Co., New Britain, Ct.

Union Hardware Co., Torrington, Ct.

**Reels, Clothes Line—**

Adams Co., Dubuque, Ia.

John C. Kupferle, St. Louis, Mo.

Peugler & Henger Mfg. Co., St. Louis.

John Sommer's Son, Newark, N. J.

**Reels, Fishing—**

Andrew B. Hendryx Co., New Haven, Ct.

John Sommer's Son, Newark, N. J.

**Reels, Hose—**

Caldwell Mfg. Co., Rochester, N. Y.

Hollands Mfg. Co., Erie, Pa.

R. W. Whitehurst & Co., Norfolk, Va.

**Reels, Wire—**

Blake & Johnson, Waterbury, Ct.  
 Mason Regulator Co., Boston, Mass.  
 F. B. Shuster Co., New Haven, Ct.  
 Standard Machinery Co., Providence, R. I.  
 Turner, Vaughn & Taylor Co., Ouyahoga Falls, O.  
 Wright Wire Co., Worcester, Mass.

**Reels, Wire Rod—**

Morgan Construction Co., Worcester, Mass.

**Reels, Wooden—**

E. B. Estes & Sons, 45-47 John St., N. Y.

**Reels, Yarn—**

Brown & Sharpe Mfg. Co., Providence, R. I.

**Refining Plants, Oil—**

Ritter-Conley Mfg. Co., Pittsburg, Pa.

**Reflectors, Lamp—**

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Reflectors, Locomotive—**

Waterbury Brass Co., Waterbury, Ct.

**Refrigerating Machinery—**

Vilter Mfg. Co., Milwaukee, Wis.

**Refrigerator Catches, &c.—**

(See Catches, &c.)

**Refrigerators and Ice Chests—**

Maine Mfg. Co., Nashua, N. H.  
 McCray Refrigerator Co., Kendallville, Ind.

**Registers and Ceiling****Plates, Stove Pipe—**

Adams Co., Dubuque, Ia.  
 Arcade Mfg. Co., Freeport, Ill.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Stover Mfg. Co., Freeport, Ill.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Registers and Ventilators—**

Canton Steel Roofing Co., Canton, O.  
 S. Cheney & Son, Manlius, N. Y.  
 Columbian Hardware Co., Cleveland, O.  
 Fanner Mfg. Co., Cleveland, O.  
 Hess-Snyder Co., Massillon, O.  
 Pleuger & Henger Mfg. Co., St. Louis, Mo.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Registers, Hand Tally—**

R. Woodman Mfg. & Supply Co., Boston, Mass.

**Regulators, Clock—**

E. Howard, Clock Co., Boston, Mass.

**Regulators, Damper—**

Julian D'Este Co., Boston, Mass.  
 Jenkins Bros., 71 John St., New York.  
 Mason Regulator Co., Boston, Mass.  
 McNab & Harlin Mfg. Co., 56 John St., New York.

Walworth Mfg. Co., Boston, Mass.

**Regulators, Feed Water—**

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Crosby Steam Gage & Valve Co., Boston.

Walworth Mfg. Co., Boston, Mass.

**Regulators, Pump, Pres-****sure—**

Julian D'Este Co., Boston, Mass.

Mason Regulator Co., Boston, Mass.

**Regulators, Temperature—**

Julian D'Este Co., Boston, Mass.

**Regulators, Upholsterers'—**

Hurwood Mfg. Co., Bridgeport, Ct.

Tuck Mfg. Co., Brooklyn, Mass.

**Regulators, Wind Mill—**

J. E. Porter Co., Ottawa, Ill.

Stover Mfg. Co., Freeport, Ill.

**Reheaters—**

Whitlock Coil Pipe Co., Hartford, Ct.

**Reloading Cartridge Tools—**

(See Tools, Reloading, Cartridge.)

**Removers, Paint and Var-**

nish—

(See Varnish and Paint Removers.)

**Repair Kits, Cobblers'—**

(See Cobblers' Kits.)

**Repair Links—**

(See Links, Repair.)

**Repair Materials, Iron Cast-**

ing—

Smooth-On Mfg. Co., Jersey City, N. J.

**Re-Sawing Machinery—**

Wickes Bros., Saginaw, Mich.

**Reservoirs, Seamless Drawn**

Steel for Air Brakes—

Pressed Steel Tank Co., Milwaukee, Wis.

**Resistance Wire—**

(See Wires, Electrical.)

**Rests, Cigar—**

Taplin Mfg. Co., New Britain, Ct.

**Rests, Foot, Shoe Blacking—**

Chicago Spring Butt Co., Chicago, Ill.

John C. Kupferle, St. Louis, Mo.

Pleuger & Henger Mfg. Co., St. Louis, Mo.

Reading Hardware Co., Reading, Pa.

Louis Sacks Iron Foundry, Newark, N. J.

Wrightsville Hardware Co., Wrightsville, Pa.

**Rests, Meat, Wire—**

(See Household Articles, Wire.)

**Rests, Shelf—**

(See Pins, Shelf.)

**Rests, Shirt, Wire—**

(See Household Articles, Wire.)

**Rests, Slide—**

J. G. Blount & Co., Everett, Mass.

F. E. Reed & Co., Worcester, Mass.

**Rests, Stove Leg—**

Fanner Mfg. Co., Cleveland, O.

**Retorts, Clay—**

Cyrus Borgner, 23d St., above Race, Philadelphia, Pa.

Henry Maurer & Son, 42 East 23d St., New York.

**Retorts for Wood Alcohol****Works—**

E. Keeler Co., Williamsport, Pa.

Struthers, Wells & Co., Warren, Pa.

**Retorts, Iron—**

Arcade Malleable Iron Co., Worcester, Mass.

**Retractors, Trolley—**

Federal Mfg. Co., Cleveland, O.

**Reverse Marine Gears—**

(See Gears, Marine Reverse.)

**Revolvers—**

(See Pistols and Revolvers.)

**Rheostat Cable—**

(See Wires, Electrical.)

**Rheostats—**

Electric Controller & Supply Co., Cleveland, O.  
General Electric Co., Schenectady, N. Y.  
Gilmore Electric Co., So. Boston, Mass.  
Mason Regulator Co., Boston, Mass.  
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.  
Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

**Ribbon, Sash—**

Caldwell Mfg. Co., Rochester, N. Y.  
Pullman Mfg. Co., Rochester, N. Y.

**Riddles and Sieves—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

W. S. Tyler Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Ridging, Iron—**

Berger Mfg. Co., Canton, O.

Garry Iron & Steel Roofing Co., Cleveland, O.

Merchant & Co., Inc., 517 Arch St., Philadelphia, Pa.

Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.

**Ridging, Ventilated—**

Globe Ventilator Co., Troy, N. Y.

**Riffers, Bent—**

Henry Diston & Sons, Philadelphia, Pa.

Nicholson File Co., Providence, R. I.

**Rifles, Carbines, &c.—**

Hopkins & Allen Arms Co., Norwich, Ct.

Marlin Fire Arms Co., New Haven, Ct.

Remington Arms Co., 313 Broadway, N. Y.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Rifles, Scythe—**

Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Pike Mfg. Co., Pike, N. H.

**Rifling Machines, Gun Barrel—**

Pratt & Whitney Co., Hartford, Ct.

**Rift Saws—**

(See Saws, Rift.)

**Riggers and Structural Iron Erectors—**

Peterson, Seburn & Co., Pittsburgh, Pa.

**Rigging, Ships, Wire—**

Durable Wire Rope Co., Boston, Mass.

**Rim Rolling Machines, Automobile—**

Blake & Johnson, Waterbury, Ct.

**Rim Rolling Machines, Bicycle—**

Blake & Johnson, Waterbury, Ct.

**Rims, Automobile—**

American Tube & Stamping Co., Bridgeport, Ct.

Federal Mfg. Co., Cleveland, O.

Standard Welding Co., Cleveland, O.

**Rims, Bicycle—**

(See Bicycle Parts.)

**Rim Steel for Pneumatic Wheels—**

(See Steel, Rim.)

**Ring Bolts, Gauges —**

(See Bolts, Gauges.)

**Ring Machines, Wire—**

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Chas. Lefler & Co., Brooklyn, N. Y.

F. B. Shuster Co., New Haven, Ct.

Standard Machinery Co., Providence, R. I.

**Rings, Brass—**

North & Judd Mfg. Co., New Britain, Ct.

W. & J. Tiebout, 118 Chambers St., N. Y.

Root Bros. Co., Plymouth, O.

**Rings, Bull—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Rings, Clinch—**

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Rhode Island Tool Co., Providence, R. I.

**Rings, Curtain Pole—**

Piqua Handle & Mfg. Co., Piqua, O.

**Rings, Flush—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stover Mfg. Co., Freeport, Ill.

W. & J. Tiebout, 118 Chambers St., N. Y.

Whitman & Barnes Mfg. Co., Akron, O.

**Rings, Hitching—**

Ney Mfg. Co., Canton, O.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

W. & J. Tiebout, 118 Chambers St., N. Y.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

**Rings, Iron—**

Standard Chain Co., Pittsburgh, Pa.

**Rings, Key—**

Billings & Spencer Co., Hartford, Ct.

**Rings, Lap or Open—**

Standard Chain Co., Pittsburgh, Pa.

**Rings, Malleable Iron—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Rings, Napkin, Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Rings on Plates—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Rings, File—**

M. Lanz & Sons, Pittsburgh, Pa.

**Rings, Pole—**

(See Telegraph and Telephone Pole Supplies.)



**Rings, Reducing—**

Adams Co., Dubuque, Ia.  
S. Cheney & Son, Manlius, N. Y.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Rings, Rock Crusher—**  
Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.

**Rings, Rubber—**  
(See Gaskets and Rings, Rubber.)

**Rings, Steel—**  
North & Judd Mfg. Co., New Britain, Ct.  
Spencer Wire Co., Worcester, Mass.  
Standard Welding Co., Cleveland, O.

**Rings, Tool Post—**  
Springfield Drop Forging Co., Springfield, Mass.

**Rings, Towel—**  
(See Racks and Rings.)

**Rings, Weldless Forged—**  
Thomas D. Carpenter, Brooklyn, N. Y.

**Rings, Wooden—**  
E. B. Estes & Son, 45-47 John St., N. Y.

**Ripping Chisels—**  
(See Chisels, Floor and Ripping.)

**Rivet Clippers, Headers, Rods—**  
(See Clippers, Headers, Rods.)

**Rivet Drilling Machines—**  
F. B. Shuster Co., New Haven, Ct.

**Riveted Pipe Plants—**  
(See Pipe Plants, Riveted.)

**Riveted Work—**  
(See Buildings and Bridges.)

**Riveters, Bicycle, Chain—**  
McCabe Hanger Mfg. Co., 533-543 West 22d St., New York.

**Riveters for Tubular and Bifurcated Rivets—**  
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

**Riveters, Hand—**  
Root Bros. Co., Plymouth, O.  
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

**Riveters, Hydraulic—**  
Alliance Machine Co., Alliance, O.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Riveters, Pneumatic—**  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Padrick & Ayer Co., 87 Liberty St., N. Y.

**Riveters, Pneumatic Tool Co., 1038 Ridge Ave., Philadelphia, Pa.**

**Hand Drill Co., 128 Broadway, New York.**

**Wm. Sellers & Co. (Inc.), Philadelphia.**

**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Riveters, Portable—**  
Alliance Machine Co., Alliance, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Wm. Sellers & Co. (Inc.), Philadelphia, Pa.

**MERCHANTS.**

Browning Engineering Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., N. Y.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

**Riveters, Steam—**  
Alliance Machine Co., Alliance, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Riveting Machinery—**  
Adriance Machine Works, Brooklyn, N. Y.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.  
Buffalo Forge Co., Buffalo, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Fischer Foundry & Machine Co., Pittsburgh, Pa.  
Garvin Machine Co., Spring & Varick Sts., New York.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Hilles & Jones Co., Wilmington, Del.  
Harvey Hubbell, Bridgeport, Ct.

Long & Allstatter Co., Hamilton, O.  
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Wm. Sellers & Co. (Inc.), Philadelphia.

F. B. Shuster Co., New Haven, Ct.  
Watson-Stillman Co., 204-210 East 43d St., New York.

Williams, White & Co., Moline, Ill.  
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

**Rivet Iron—**  
(See Iron, Rivet.)

**Rivet Machinery—**  
Acme Machinery Co., Cleveland, O.  
American Machinery Co., Willoughby, O.

Blake & Johnson, Waterbury, Ct.  
E. J. Manville Mach. Co., Waterbury, Ct.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Rivets and Burrs, Copper—**  
Ansonia Brass & Copper Co., 99 John St., New York.  
Blake & Johnson, Waterbury, Ct.

Bridgeport Brass Co., Bridgeport, Ct.  
Cobb & Drew, Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Progressive Mfg. Co., Torrington, Ct.  
C. C. & E. P. Townsend, New Brighton, Pa.

Waterbury Brass Co., Waterbury, Ct.

**Rivets, Boat—**

Champion Rivet Co., Cleveland, O.  
Fort Pitt Forge Co., Pittsburgh, Pa.

**Rivets, Brass—**

Ansonia Brass & Copper Co., 99 John St., New York.

Blake & Johnson, Waterbury, Ct.  
Cobb & Drew, Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

Progressive Mfg. Co., Torrington, Ct.

**Rivets, Braziers'—**

Blake & Johnson, Waterbury, Ct.  
Plume & Atwood Mfg. Co., Waterbury, Ct.

Scovill Mfg. Co., Waterbury, Ct.  
Stover Mfg. Co., Freeport, Ill.

**Rivets, Clinch—**

Grand Crossing Tack Co., Grand Crossing, Ill.

**Rivets, Copper-Smiths'—**

Waterbury Brass Co., Waterbury, Ct.

**Rivet Sets, Tong—**

(See Sets, Tong.)

**Rivets, Hinge—**

Grand Crossing Tack Co., Grand Crossing, Ill.

Sargent & Co., 151 Leonard St., N. Y.

**Rivets, Iron and Steel—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

American Screw Co., Providence, R. I.  
Atlas Car & Mfg. Co., Cleveland, O.

Charles H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Burden Iron Co., Troy, N. Y.  
Blake & Johnson, Waterbury, Ct.

Champion Rivet Co., Cleveland, O.  
Clark Bros. Bolt Co., Milldale, Ct.

Cobb & Drew, Plymouth, Mass.  
Forest City Steel & Iron Co., Cleveland.

Fort Pitt Forge Co., Pittsburgh, Pa.  
Garland Nut & Rivet Co., Rankin Station, Pa.

Grand Crossing Tack Co., Grand Crossing, Ill.

R. C. Jenkins & Co., Newark, N. J.  
Jones & Laughlin Steel Co., Pittsburgh.

M. Lanz & Son, Pittsburgh, Pa.  
Franklin Moore Co., Winsted, Ct.

New Castle Forge & Bolt Co., New Castle, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.  
Plymouth Mills, Plymouth, Mass.

Progressive Mfg. Co., Torrington, Ct.  
Reading Screw Co., Norristown, Pa.

Republic Iron & Steel Co., Chicago, Ill.  
Rockford Bolt Works, Rockford, Ill.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
C. C. & E. P. Townsend, New Brighton, Pa.

Upson Nut Co., Cleveland, O.

**Rivets, Oyster—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Rivet Wire—**

(See Wire, Rivet.)

**Road Rollers, Scrapers—**

(See Rollers, Scrapers.)

**Roasters, Coffee—**

Lane Bros. Co., Foughkepaie, N. Y.

**Roasting and Baking Pans—**

(See Pans, Roasting and Baking.)

**Rocker Springs—**

(See Springs, Rocker.)

**Rod Cutters, Headers—**

(See Cutters, Headers.)

**Rod Mill Machinery—**

Morgan Construction Co., Worcester, Mass.

**Rod Reels, Wire—**

(See Reels, Wire Rod.)

**Rods, Anchor, Bridge, &c.—**

M. Lanz & Son, Pittsburgh, Pa.

**Rods, Awning—**

Forest City Steel & Iron Co., Cleveland, O.

**Rods, Bessemer Coppered—**

National Wire Corporation, New Haven, Ct.

**Rods, Black Steel—**

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

**Rods, Brass, Copper—**

(See Brass and Copper Rods.)

**Rods, Bright Machine Screw—**

Brown-Wales Co., Boston, Mass.  
Cleveland Wire Spring Co., Cleveland, O.

**Rods, Bronze—**

National Wire Corporation, New Haven, Ct.

**Rods, Connecting—**

Bridgeport Brass Co., Bridgeport, Ct.  
Phosphor-Bronze Smelting Co., 3200 Washington Ave., Philadelphia, Pa.

**Rods, Coppered Steel—**

Plume & Atwood Mfg. Co., Waterbury, Ct.

**Rods, Curtain—**

Waterbury Brass Co., Waterbury, Ct.

**Rods, Dental Octagon—**

Tindel-Morris Co., Eddystone, Pa.

**Rods, Patriarche & Bell, 215 Pearl St., N. Y.**

**Rods, Patriarche & Bell, 215 Pearl St., N. Y.**

Ludlow-Saylor Wire Co., St. Louis, Mo.  
National Wire Corporation, New Haven, Ct.

**Rods, Parker Wire Goods Co., Worcester, Mass.**

Spencer Wire Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.

**Rods, Wright Wire Co., Worcester, Mass.**

Wright Wire Co., Worcester, Mass.

**Rods, McKee's Rocks, Pa.**

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

**Rods, Fishing—**

Clark, Horrocks Co., Utica, N. Y.  
Dame, Stoddard & Co., Boston, Mass.

**Rods, Gauging, &c.**

Chapin-Stephens Co., Pine Meadow, Ct.  
Stanley Rule & Level Co., New Britain, Ct.

**Rods, Upson Nut Co., Cleveland, O.**

Upson Nut Co., Cleveland, O.

**Rods, Gun and Rifle Clean-**

**ing—**  
W. R. Hartigan, Collinsville, Ct.  
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Rods, Gun Screw—**  
Cleveland Wire Spring Co., Cleveland, O.  
National Wire Corporation, New Haven, Ct.

**Rods, Guy—**

M. Lanz & Sons, Pittsburgh, Pa.

**Rods, Hitching Post—**

(See Hitching Post Rods.)

**Rods, Key—**

Columbia Bridge Co., Pittsburgh, Pa.

**Rods, Leveling—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.

**Rods, Miter—**

National Saw Co., Newark, N. J.

**Rods, Nail and Rivet—**  
National Wire Corporation, New Haven, Ct.

**Rods, Piston—**

Columbia Bridge Co., Pittsburgh, Pa.  
Finished Steel Co., Youngstown, O.  
Jones & Laughlin Steel Co., Pittsburgh.  
Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

**Rods, Pump—**

Columbia Bridge Co., Pittsburgh, Pa.  
Finished Steel Co., Youngstown, O.  
Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

**Rods, Resistance, Electric—**  
Jos. Dixon Crucible Co., Jersey City, N. J.

**Rods, Roller Bearing—**  
Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

**Rods, Saw—**

E. C. Atkins & Co., Indianapolis, Ind.  
Geo. E. Bishop & Co., Cincinnati, O.  
Henry Diston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.  
Charles Parker Co., Meriden, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Simonds Mfg. Co., Fitchburg, Mass.

**Rods, Screw—**

Columbia Bridge Co., Pittsburgh, Pa.  
Finished Steel Co., Youngstown, O.  
National Wire Corporation, New Haven, Ct.

**Rods, Screw Driver Steel—**  
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

**Rods, Steel Drill—**

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.  
Pittsburgh Tool Steel Wire Co., Monaca, Pa.  
Abel Rollason & Sons, Birmingham, England.

**Rods, Stove—**

American Screw Co., Providence, R. I.  
Fanner Mfg. Co., Cleveland, O.  
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

**Rods, Tap and Reamer—**

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.  
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Abel Rollason & Sons, Birmingham, England.

**Rods, Tie—**

American Iron & Steel Mfg. Co., Lebanon, Pa.  
Berlin Construction Co., Berlin, Ct.  
Fort Pitt Forge Co., Pittsburgh, Pa.  
Samuel Hall's Sons, 223-233 W. 10th St., New York.

Matthew Lanz & Sons, Pittsburgh, Pa.

**Rods, Tubular Lease—**

Standard Welding Co., Cleveland, O.

**Rods, Upset—**

American Iron & Steel Mfg. Co., Lebanon, Pa.  
Fort Pitt Forge Co., Pittsburgh, Pa.  
New Castle Forge & Bolt Co., New Castle, Pa.

**Rods, Ventilator—**

(See Ventilator, Controlling Rods.)

**Rods, Wire—**

Columbia Bridge Co., Pittsburgh, Pa.  
Dominion Iron & Steel Co., Sydney, Nova Scotia, Canada.  
Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.  
National Wire Corporation, New Haven, Ct.

Abel Rollason & Sons, Birmingham, England.

Vulcan Crucible Steel Co., Aliquippa, Pa.  
S. & C. Wardlow, 36 John St., New York.  
Washburn Wire Co., Phillipsdale, R. I.  
Wickwire Bros., Cortland, N. Y.

**Rod Tapering Mills—**

(See Mills, Rod Tapering.)

**Roll Brass, Bronze, Copper—**

(See Brass, Bronze, Copper.)

**Roller Bearings, Skates.****Stays—**

(See Bearings, Skates, Stays.)

**Roller Bearing Steel—**

(See Steel, Roller Bearing.)

**Roller Grates—**

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

**Roller Leveling Machines**

**for Sheets—**  
Cincinnati Punch & Shear Co., Cincinnati, O.

**Rollers, Ball Bearing—**

Johnston & Sharp Mfg. Co., Ottumwa, Ia.

**Rollers, Bogie—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

**Rollers, Door—**

S. Cheney & Son, Manlius, N. Y.  
Morley Bros., Saginaw, Mich.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

Wrightsville Hardware Co., Wrightsville, Pa.

**Rollers, Garden—**

E. R. Allen Foundry Co., Corning, N. Y.  
A. Buch's Sons Co., Elizabethtown, Pa.  
R. W. Whitehurst Co., Norfolk, Va.

**Rollers, Glass—**

Utica Drop Forge & Tool Co., Utica, N. Y.

**Rollers, Land—**

E. R. Allen Foundry Co., Corning, N. Y.  
A. Buch's Sons Co., Elizabethtown, Pa.  
Cutaway Harrow Co., Higginum, Ct.  
R. W. Whitehurst Co., Norfolk, Va.  
E. R. Allen Foundry Co., Corning, N. Y.  
Cutaway Harrow Co., Higginum, Ct.  
R. W. Whitehurst Co., Norfolk, Va.

**Rollers, Road—**

A. Buch's Sons Co., Elizabethtown, Pa.  
Thos. Carlin's Sons, Allegheny, Pa.  
R. W. Whitehurst Co., Norfolk, Va.

**Rollers, Sash—**

Ney Mfg. Co., Canton, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Rollers, Stay—**

Chicago Spring Butt Co., Chicago, Ill.  
Lawrence Bros., Sterling, Ill.  
Louden Machinery Co., Fairfield, Ia.  
Midland Iron Works, Racine, Wis.  
National Mfg. Co., Sterling, Ill.  
Ney Mfg. Co., Canton, O.  
Richards Mfg. Co., Aurora, Ill.  
Sargent & Co., 151 Leonard St., N. Y.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
Wilcox Mfg. Co., Aurora, Ill.

**Rollers, Towel—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Rollers, Trunk—**

I. H. Sessions & Son, Bristol, Ct.

**Roll Grinding, Jewelers—**

Standard Machinery Co., Providence, R. I.

**Rolling Machines, Bicycle**

**Rim—**  
(See Rim Rolling Machines, Bicycle.)

**Rolling Mill Gauges—**

(See Gauges, Rolling Mill.)

**Rolling Mill Machinery—**

Allentown Rolling Mills, Allentown, Pa.  
Alliance Machine Co., Alliance, O.  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
Atlas Car & Mfg. Co., Cleveland, O.  
Bertsch & Co., Cambridge City, Ind.  
Birmingham Iron Foundry, Derby, Ct.  
Blake & Johnson, Waterbury, Ct.  
Cincinnati Punch & Shear Co., Cincinnati, O.  
Cleveland Punch & Shear Works Co., Cleveland, O.  
Curry & Vannan, Danville, Pa.  
Diamond Drill & Machine Co., Birdsboro, Pa.  
Farrel Foundry & Machine Co., Ansonia, Ct.  
Fischer Foundry & Machine Co., Pittsburgh, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.  
Heppenstall Forge & Knife Co., Pittsburgh, Pa.

Hilles & Jones Co., Wilmington, Del.  
George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.

J. H. Lingle, Bellefonte, Pa.

Mahoning Foundry & Machine Co., Youngstown, O.

Mesta Machine Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

George A. Ohl & Co., Newark, N. J.

Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Roll & Machine Co., 23d St., & Washington Ave., Philadelphia.

Poole Engineering & Machine Co., Baltimore, Md.

Standard Machinery Co., Providence, R. I.

William Tod Co., Youngstown, O.

United Engineering & Foundry Co., Pittsburgh, Pa.

Velte Foundry & Machinery Co., Pittsburgh, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

**MERCHANTS.**

Barclay M. Everson, Pittsburgh, Pa.

Marshall & Huchart Machinery Co., 62 Canal St., Chicago, Ill.

McGeorge & Sons, Cleveland, O.

F. E. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

**Rolling Mills, Brass—**

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Rolling Mills, Gold and Silver—**

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Rolling Pins—**

(See Pins, Rolling.)

**Rolls, Beam Bending—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Thomas Carlin's Sons, Allegheny, Pa.

Fischer Foundry & Machine Co., Pittsburgh, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.

**Rolls, Bending and Straightening—**

Bertsch & Co., Cambridge City, Ind.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Thos. Carlin's Sons, Allegheny, Pa.

Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Diamond Drill & Machine Co., Birdsboro, Pa.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.

Fischer Foundry & Machine Co., Pittsburgh, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.

Hilles & Jones Co., Wilmington, Del.

New Doty Mfg. Co., Janesville, Wis.  
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.  
Pittsburgh Mfg. Co., Pittsburgh, Pa.  
Wm. Sellers & Co. (Inc.), Philadelphia.  
Titusville Forge Co., Titusville, Pa.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Wellman-Seaver-Morgan Co., Cleveland, O.  
Wickes Bros., Saginaw, Mich.  
Williams, White & Co., Moline, Ill.

#### MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Rolls, Cast Steel—**  
Bethlehem Steel Co., So. Bethlehem, Pa.

**Rolls, Crimping—**  
Bertach & Co., Cambridge City, Ind.  
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.  
New Doty Mfg. Co., Janesville, Wis.  
Niagara Machine & Tool Works, Buffalo, N. Y.  
George A. Ohl & Co., Newark, N. J.

#### MERCHANTS.

Bassett-Presley Co., Cleveland, O.

**Rolls, Crushing—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
Thos. Carlin's Sons, Allegheny, Pa.  
Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.  
Diamond Drill & Machine Co., Birdsboro, Pa.

Farrel Foundry & Mach. Co., Ansonia, Ct.  
A. Garrison Foundry Co., Pittsburgh, Pa.  
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.  
United Engineering & Foundry Co., Pittsburgh, Pa.

**Rolls, Forging—**  
Ajax Mfg. Co., Cleveland, O.  
Kilborn & Bishop Co., New Haven, Ct.  
Williams, White & Co., Moline, Ill.  
**Rolls, Granite, Chocolate—**  
Est. of John Dickipson, 64 Nassau St., New York.

**Rolls, Hand and Belt Power, Bending—**

Bertach & Co., Cambridge City, Ind.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Cincinnati Punch & Shear Co., Cincinnati, O.  
Hilles & Jones Co., Wilmington, Del.  
New Doty Mfg. Co., Janesville, Wis.  
Niagara Machine & Tool Works, Buffalo, N. Y.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
George A. Ohl & Co., Newark, N. J.  
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.

Wickes Bros., Saginaw, Mich.

**Rolls, Hardened Forged**

**Steel—**  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Blake & Johnson, Waterbury, Ct.  
Heppenstall Forge & Knife Co., Pittsburgh, Pa.  
Standard Machinery Co., Providence, R. I.

**Roll Shells, Crushing—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

**Roll Shells—**  
(See Shells, Roll)

**Rolls, Jewelers—**  
Blake & Johnson, Waterbury, Ct.  
E. J. Manville Mach. Co., Waterbury, Ct.  
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.  
Standard Machinery Co., Providence, R. I.

**Rolls, Paper—**  
Farrel Foundry & Mach. Co., Ansonia, Ct.

**Rolls, Sand, Chilled and Steel—**

Arcade Malleable Iron Co., Worcester, Mass.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Birmingham Iron Foundry, Derby, Ct.  
Blake & Johnson, Waterbury, Ct.  
Diamond Drill & Machine Co., Birdsboro, Pa.

Farrel Foundry & Mach. Co., Ansonia, Ct.  
A. Garrison Foundry Co., Pittsburgh, Pa.  
George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.  
Mesta Machine Co., Pittsburgh, Pa.  
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.  
Seaman-Sleeth Co., Pittsburgh, Pa.  
Standard Machinery Co., Providence, R. I.  
Tindel-Morris Co., Eddystone, Pa.  
United Engineering & Foundry Co., Pittsburgh, Pa.  
Wheeling Mold & Foundry Co., Wheeling, W. Va.

**Roll Top Desks—**  
(See Desks, Office.)

**Roof Bolts, Rods—**  
(See Bolts, Rods.)

**Roofing, Asphalt—**  
Asphalt Ready Roofing Co., 136 Water St., New York.

Stowell Mfg. Co., Jersey City, N. J.

**Roofing, Asphalt, Stone Covered—**  
Eastern Granite Roofing Co., Irving Bldg., West Broadway, New York.

**Roofing Brackets, Tongues—**  
(See Brackets, Tongues.)

**Roofing, Cement—**  
Asphalt Ready Roofing Co., 136 Water St., New York.

**Roofing, Fireproof—**  
Brown Hoisting Machinery Co., Cleveland, O.

**Roofing, Iron and Steel—**  
American Bridge Co., 100 Broadway, New York.

Boston Bridge Works, Boston, Mass.  
Berger Mfg. Co., Canton, O.  
Canton Steel Roofing Co., Canton, O.  
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.  
Edwards Mfg. Co., Cincinnati, O.

Forest City Steel & Iron Co., Cleveland, O.  
 Garry Iron & Steel Co., Cleveland, O.  
 Goff, Horner & Co., Ltd., Pittsburgh, Pa.  
 McCullough Iron Co., Wilmington, Del.  
 Merchant & Co. Inc., 517 Arch St., Philadelphia, Pa.  
 Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.  
 New Process Steel & Wire Co., East St. Louis, Ill.  
 Pittsburgh Sheet & Tin Plate Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.  
 Youngtown Iron Sheet & Tube Co., Youngstown, O.  
 Youngtown Iron & Steel Roofing Co., Youngstown, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
 Bourne-Fuller Co., Cleveland, O.  
 Brown-Wales Co., Boston, Mass.  
 Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

**Roofing Metal—**

(See Corrugated Iron.)

**Roofing Plates—**

(See Sheets, Roofing.)

**Roofing, Prepared—**

Asphalt Ready Roofing Co., 136 Water St., New York.  
 Eastern Granite Roofing Co., Irving Bldg., West Broadway, New York.  
 Garry Iron & Steel Co., Cleveland, O.  
 Standard Paint Co., 100 William St., New York.  
 Stowell Mfg. Co., Jersey City, N. J.  
 Walter A. Zeinicker Supply Co., St. Louis, Mo.

**Roofs—**

(See Buildings and Bridges.)

**Root, Tobacco Cutters—**

(See Cutters, Tobacco, Root.)

**Rope, Braided Cotton.**

**Linon, &c.—**

George B. Carpenter & Co., 1-5 5th Ave., Chicago, Ill.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Samson Cordage Works, Boston, Mass.  
 Silver Lake Co., Boston, Mass.

**Rope Clamps, Clips, &c.—**

(See Clamps, Clips, &c.)

**Rope Coating Filler—**

(See Coating, Filler.)

**Rope, Cotton—**

A. Leschen & Sons Rope Co., St. Louis.

**Rope, Hay—**

American Mfg. Co., 63 Wall St., N. Y.  
 A. Leschen & Sons Rope Co., St. Louis.  
 J. W. Paxson Co., Philadelphia, Pa.

**Rope, Hide—**

American Mfg. Co., 63 Wall St., N. Y.  
 A. Leschen & Sons Rope Co., St. Louis.

**Rope, Hoisting, Phosphor-Bronze—**

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

**Rope, Manila, Sisal, Jute and Hemp—**

American Mfg. Co., 65 Wall St., N. Y.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.  
 Dodge Mfg. Co., Mishawaka, Ind.  
 Ironsides Co., Columbus, O.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.  
 Macomber & Whyte Rope Co., Chicago.  
 Waterbury Co., 69 South St., New York.

**Rope, Picket—**

Metal Stamping Co., Niagara Falls, N. Y.

**Ropes, Hammock and Hitching—**

American Mfg. Co., 63 Wall St., N. Y.  
 Covert Mfg. Co., West Troy, N. Y.  
 Covert's Saddlery Works, Farmer, N. Y.  
 Metal Stamping Co., Niagara Falls, N. Y.  
 I. E. Palmer, Middletown, Ct.  
 Samson Cordage Works, Boston, Mass.

**Ropes, Locomotive Switching—**

A. Leschen & Sons Rope Co., St. Louis, Mo.

**Rope, Tiller, Phosphor-Bronze—**

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

**Rope Transmission—**

American Mfg. Co., 63 Wall St., N. Y.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

Case Mfg. Co., Columbus, O.  
 Dodge Mfg. Co., Mishawaka, Ind.  
 Durable Wire Rope Co., Boston, Mass.  
 C. W. Hunt Co., West New Brighton, N. Y.

Ironsides Co., Columbus, O.  
 A. Leschen & Sons Rope Co., St. Louis, Mo.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Samson Cordage Works, Boston, Mass.

**Ropeways, Wire—**

(See Tramways, Wire Rope.)

**Rope, Wire—**

Broderick & Bascom Rope Co., St. Louis.  
 Carlin Machine & Supply Co., Allegheny, Pa.

Durable Wire Rope Co., Boston, Mass.  
 Hazard Mfg. Co., Wilkesbarre, Pa.

A. Leschen & Sons Rope Co., St. Louis, Mo.

Macomber & Whyte Rope Co., Chicago.  
 National Wire Corporation, New Haven, Ct.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.

Trenton Iron Co., Trenton, N. J.

Waterbury & Co., 69 South St., N. Y.

Williamsport Wire Rope Co., Williamsport, Pa.

**Rosette Cut Outs—**

Gilmore Electric Co., So. Boston, Mass.

**Rosettes, Iron—**

Bethlehem Foundry & Machine Co.,  
South Bethlehem, Pa.  
John W. Clark, Albany, N. Y.  
Chas. G. Eckstein, 249 Centre St., N. Y.  
Keystone Drop Forge Works, Chester, Pa.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Rounders, Saw—**

(See Saws, Guides and Rounders.)

**Rowlocks—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Rubber and Paper Insulated Wire—**

(See Wires, Electrical.)

**Rubber Belting, Cement, &c.—**

(See Belting, Cement, &c.)

**Rubber Covered Wire—**

(See Wire, Electrical.)

**Rubber Goods, Mechanical—**

H. O. Canfield, Bridgeport, Ct.  
Whitman & Barnes Mfg. Co., Akron, O.  
**Rubber Machinery—**  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Birmingham Iron Foundry Derby, Ct.  
Farrel Fdy. & Mach. Co., Ansonia, Ct.  
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Rubber Rings—**

(See Gaskets and Rings, Rubber.)

**Rubber Sheets, Vulcanized—**

(See Sheet Rubber, Vulcanized.)

**Rubber Washing Machinery—**

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Rubbing Beds—**

F. B. Patch Mfg. Co., Rutland, Vt.

**Rub Irons—**

(See Irons, Rub.)

**Rubs, Emery—**

(See Emery Rubs for Foundry Use.)

**Rudder Braces—**

(See Braces, Rudder.)

**Rulers, Desk and School—**

Chapin-Stephens Co., Pine Meadow, Ct.  
Lufkin Rule Co., Saginaw, Mich.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
L. S. Starrett Co., Athol, Mass.  
Upson Nut Co., Cleveland, O.

**Rules, Blacksmiths—**

Lufkin Rule Co., Saginaw, Mich.

L. S. Starrett Co., Athol, Mass.

**Rules, Board and Log—**

Chapin-Stephens Co., Pine Meadow, Ct.

Lufkin Rule Co., Saginaw, Mich.

**Rules, Boxwood—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Chapin-Stephens Co., Pine Meadow, Ct.

C. E. Jennings Co., 42 Murray St., N. Y.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Upson Nut Co., Cleveland, O.

**Rules, Combination—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

Chapin-Stephens Co., Pine Meadow, Ct.

**Rules, Ivory—**

Chapin-Stephens Co., Pine Meadow, Ct.

C. E. Jennings Co., 42 Murray St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Upson Nut Co., Cleveland, O.

**Rules, Keyseat—**

Sawyer Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Rules, Log, Caliper—**

Humphrey Machine Co., Keene, N. H.

**Rules, Machinists—**

Athol Machine Co., Athol, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings Co., 42 Murray St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Rules, Metric Steel—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Rules, Scale and Shrinkage—**

Billings & Spencer Co., Hartford, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Chapin-Stephens Co., Pine Meadow, Ct.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

L. S. Starrett Co., Athol, Mass.

**Rules, Slide—**

Chapin-Stephens Co., Pine Meadow, Ct.

Keuffel & Esser Co., 127 Fulton St., New York.

L. S. Starrett Co., Athol, Mass.

**Rules, Steel—**

Athol Machine Co., Athol, Mass.

Billings & Spencer Co., Hartford, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Disston & Sons, Philadelphia, Pa.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

Sargent & Co., 151 Leonard St., N. Y.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Rules, Steel Caliper—**

Athol Machine Co., Athol, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

**Rules, Tinnerns—**

Lufkin Rule Co., Saginaw, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

**Runs, House and Car—**

(See Ice Harvesting Tools.)

**Rust Repeller—**

Marlin Fire Arms Co., New Haven, Ct.

**Saddlers' Hammers—**

(See Hammers, Saddlers' and Upholsterers.)

**Saddlery Hardware—**

Covert Mfg. Co., West Troy, N. Y.

Covert's Saddlery Works, Farmer, N. Y.

Sargent & Co., 151 Leonard St., N. Y.

**Saddles, Bicycle—**

Federal Mfg. Co., Cleveland, O.

Sturges & Burn Mfg. Co., Chicago, Ill.

- Saddles, Extension—**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Sad Iron Handles, Heaters, Stands—**  
(See Handles, Heaters, Stands.)
- Sad Irons—**  
(See Irons, Sad, Laundry, &c.)
- Safes, Fire and Burglar Proof—**  
Chicago Safe Co., 292-296 Jackson Boulevard, Chicago, Ill.
- Safes, Match—**  
Fanner Mfg. Co., Cleveland, O.  
New York Stamping Co., Brooklyn, N. Y.  
Charles Parker Co., Meriden, Ct.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-45 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Seorill Mfg. Co., Waterbury, Ct.  
Sidney Shepard & Co., Buffalo, N. Y.  
A. C. Williams, Ravenna, O.
- Safes, Provision—**  
Howard & Morse, 45 Fulton St., N. Y.
- Safety Chains, Pins, Valves—**  
(See Chains, Pins, Valves.)
- Safe Works Machinery—**  
Hilles & Jones Co., Wilmington, Del.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.
- Sailmakers—**  
Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.
- Sail Makers' Palms—**  
(See Palms, Sailors' and Sail Makers'.)
- Salad Casters—**  
(See Casters, Silver Plated.)
- Salad Servers—**  
(See Servers, Salad.)
- Salamanders—**  
(See Stoves, Plasterers'.)
- Salinometers—**  
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Salt Machinery—**  
Warsaw Elevator Co., Warsaw, N. Y.
- Salts—**  
(See Peppers and Salts, Silver Plated.)
- Salts, Shaker—**  
Fred J. Meyers Mfg. Co., Hamilton, O.
- Sample Holders—**  
(See Holders, Sample.)
- Sand and Mud Tub Bands—**  
(See Bands, Vehicle Wheel, Sand and Mud.)
- Sand, Asbestos—**  
American Asbestos Co., Terre Haute, Ind.
- Sand Blast Machinery—**  
S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.  
Edgar T. Ward & Sons, Boston, Mass.
- S. and S Hooks—**  
(See Hooks, S and S.)
- Sand, Fire—**  
E. M. Baedrich, 311 1-2 Walnut St., Philadelphia, Pa.  
Henry Maurer & Son, 420 E. 23d St., Troy, N. Y.  
Ostrander Fire Brick Co., Troy, N. Y.  
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
- Presbrey Fire Brick Works, Taunton, Mass.**  
J. D. Smith Foundry Supply Co., Cleveland, O.  
M. D. Valentine & Bro. Co., Woodbridge, N. J.
- Sand Mixing Machines, Rolls, Sifters—**  
(See Mixing Machines, Rolls, Sifters.)
- Sand, Molding—**  
Newport Sand Bank Co., Newport, Ky.
- Sandpaper—**  
(See Paper, Sand, Garnet, &c.)
- Sandstone—**  
Pike Mfg. Co., Pike, N. H.
- Sanitary Specialties—**  
(See Bathroom and Toilet Specialties.)
- Sap Pails, Spouts—**  
(See Spouts, Sap.)
- Sash Balances, Centers, &c—**  
(See Balances, Centers, &c.)
- Sash Cord, Ribbon and Wire, Attachments—**  
(See Irons, Sash Cord, Ribbon and Wire.)
- Sash, Hot Bed—**  
Lord & Burnham Co., Irvington-on-Hudson, N. Y.
- Sash, Iron—**  
(See Iron Work, Builders'.)
- Saturating Machines for Tar Paper—**  
Farrel Fdy. & Mach. Co., Ansonia, Ct.
- Saucepans, Copper—**  
(See Ware, Copper.)
- Saucer Holders—**  
(See Holders.)
- Sausage Stuffers—**  
(See Stuffers, Sausage.)
- Savings Banks, Toy—**  
(See Toy Savings Banks.)
- Saw Arbors, Bucks, &c.—**  
(See Arbors, Bucks, &c.)
- Saw Blades, Plain and Corrugated—**  
(See Blades, Plain and Corrugated Saw.)
- Saw Dust, Boxwood—**  
Samuel Winslow Skate Mfg. Co., Worcester, Mass.
- Saw Dust Carriers—**  
Buhl Malleable Co., Detroit, Mich.
- Saw Filers—**  
(See Filers, Saw.)
- Saw Grinders and Rounders—**  
E. C. Atkins & Co., Indianapolis, Ind.  
Henry Diston & Sons, Philadelphia, Pa.  
Simonds Mfg. Co., Fitchburg, Mass.
- Saw Guides, Band—**  
(See Guides, Band Saw.)
- Saw Handles, Crosscut—**  
(See Handles, Crosscut Saw.)
- Sawing Machines, Band—**  
Humphrey Machine Co., Keene, N. H.  
Wickes Bros., Saginaw, Mich.
- Sawing Machines, Circular, Cold Metal—**  
MERCHANTS  
J. R. Vandeyck Co., 8 Dey St., New York.
- Sawing Machines, Electro and Linotype—**  
R. E. Kidder, Worcester, Mass.
- Sawing Machines, Metal—**  
Armstrong Bros. Tool Co., 617 Austine Ave., Chicago, Ill.



**Saws, Segment or Veneering—**

E. C. Atkins & Co., Indianapolis, Ind.  
 Henry Disston & Sons, Philadelphia, Pa.  
 National Saw Co., Newark, N. J.  
 Simonds Mfg. Co., Fitchburg, Mass.

**Saws, Slitting—**

E. C. Atkins & Co., Indianapolis, Ind.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Etna Mfg. Co., 253 Broadway, New York.  
 Wm. G. Le Count, So. Norwalk, Ct.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.  
 Pratt & Whitney Co., Hartford, Ct.

**Saws, Slitting, Metal—**

E. C. Atkins & Co., Indianapolis, Ind.  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Henry Disston & Sons, Philadelphia, Pa.  
 Wm. G. Le Count, So. Norwalk, Ct.  
 Pratt & Whitney Co., Hartford, Ct.

**Saws, Stone—**

Henry Disston & Sons, Philadelphia, Pa.

**Saws, Swing, Cut Off—**

Greaves, Kinsman & Co., Cincinnati, O.  
 Lane Mfg. Co., Montpelier, Vt.

**Saws, Tube—**

Henry Disston & Sons, Philadelphia, Pa.  
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Saws, Turning—**

(See Wheels, Turning, Felloe, &c.)

**Saws, Wire Scarfing—**

Waterbury Machine Co., Waterbury, Ct.

**Saws, Wood, and Wood Saw Blades—**

E. C. Atkins & Co., Indianapolis, Ind.  
 Geo. H. Bishop & Co., Cincinnati, O.  
 Henry Disston & Sons, Philadelphia, Pa.  
 C. E. Jennings Co., 42 Murray St., N. Y.  
 National Saw Co., Newark, N. J.  
 Simonds Mfg. Co., Fitchburg, Mass.  
 Stover Mfg. Co., Freeport, Ill.

**Saw Tooth Gauges—**

(See Gauges, Saw Tooth.)

**Scabbards, Sword—**

Standard Welding Co., Cleveland, O.

**Scale Attachments, Recording, Registering, &c.—**

Fairbanks Co., 416 Broome St., New York.  
 Standard Scale & Supply Co., Pittsburgh.

**Scale Beams—**

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Scales and Measures, Steel—**

Est. of John Dickinson, 64 Nassau St., New York.

**Scales, Fish—**

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Covert's Saddlery Works, Farmer, N. Y.  
 Fairbanks Co., 416 Broome St., New York.  
 Reading Hardware Co., Reading, Pa.

A. C. Williams, Bayview, O.

**Scales, Abattoir and Butcher—**

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Army and Navy—**

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Standard Scale & Supply Co., Pittsburgh.

**Scales, Assay—**

(See Assay Balances and Scales.)

**Scales, Bathroom—**

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Fairbanks Co., 416 Broome St., N. Y.

**Scales, Candy—**

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Landers, Frary & Clark, New Britain, Ct.

Osgood Scale Co., Binghamton, N. Y.  
 I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Cement Testing—**

Fairbanks Co., 416 Broome St., N. Y.

**Scales, Cheese—**

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Standard Scale & Supply Co., Pittsburgh.

**Scales, Coal Mine and Tipple—**

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Computing—**

Fairbanks Co., 416 Broome St., New York.  
 Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.

**Scales, Cotton and Wool—**

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Counter and Grocers—**

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Landers, Frary & Clark, New Britain, Ct.

Osgood Scale Co., Binghamton, N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.

Reading Hardware Co., Reading, Pa.  
 I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Dormant, Warehouse—**

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
 Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Draftsmen's—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Kenuff & Esser Co., 127 Fulton St., N. Y.  
 L. S. Starrett Co., Athol, Mass.

**Scales, Family—**

American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.  
 Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.

Landers, Frary & Clark, New Britain, Ct.  
North Bros. Mfg. Co., Philadelphia, Pa.  
Osgood Scale Co., Binghamton, N. Y.  
Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.  
I. S. Spencer's Sons, Guilford, Ct.

**Scales, Fish—**  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Landers, Frary & Clark, New Britain, Ct.  
Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.

**Standard Scale & Supply Co., Pittsburgh.**  
Wrightsville Hardware Co., Wrightsville, Pa.

**Scales, Furnace Charging and Foundry—**  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Glass Works—**  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Graduated—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

Fairbanks Co., 416 Broome St., New York.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Scales, Grain and Elevator—**  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Pratt & Whitney Co., Hartford, Ct.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Hanging Hopper Beam—**

Fairbanks Co., 416 Broome St., N. Y.  
Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.

**Scales, Ice—**  
Branchville Ice Tool Works, Branchville, Ct.

John Chatillon & Sons, 85 Cliff St., New York.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Landers, Frary & Clark, New Britain, Ct.  
Osgood Scale Co., Binghamton, N. Y.

Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.

Wm. T. Wood & Co., Arlington, Mass.

**Scales, Leather Inspectors—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., New York.

**Scales, Letter—**  
Fairbanks Co., 416 Broome St., New York.

**Scales, Lifting—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., New York.

**Scales, Moisture—**  
Fairbanks Co., 416 Broome St., N. Y.

**Scales, Ore, Metal and Pig Iron—**  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Personal—**  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Platform—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
C. W. Hunt Co., West New Brighton, N. Y.

Osgood Scale Co., Binghamton, N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Postal—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
International Silver Co., 9-13 Maiden Lane, New York.

Osgood Scale Co., Binghamton, N. Y.  
Pelouze Scale & Mfg. Co., 182 W. Jackson Boulevard, Chicago, Ill.

**Scales, Professional—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, R. R. Track—**  
Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Reverse Acting Meat Beam—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

**Scales, Spring—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Fairbanks Co., 416 Broome St., New York.  
Landers, Frary & Clark, New Britain, Ct.

I. S. Spencer's Sons, Guilford, Ct.

**Scales, Stock, Wagon and Hay—**

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Suspension—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Standard Scale & Supply Co., Pittsburgh.

Jos. F. McCoy Co., 157 Chambers St., New York.

**Scales, Underwear—**  
Fairbanks Co., 416 Broome St., N. Y.

**Scales, Union—**  
John Chatillon & Sons, 85 Cliff St., N. Y.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

Fairbanks Co., 416 Broome St., N. Y.  
Osgood Scale Co., Binghamton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

**Scales, Yarn—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

Fairbanks Co., 416 Broome St., N. Y.

**Scarring Machines, Plate**  
Detrick & Harrey Machine Co., Baltimore, Md.



National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.

**Scrapers, Wire—**  
(See Knives, Electrician.)

**Scratch Awls, Gauges—**  
(See Awls, Gauges.)

**Screen Bolts, Doors, &c.—**  
(See Bolts, Doors, &c.)

**Screens, Fire, Folding—**  
S. M. Howes Co., Boston, Mass.

**Screens, Radiator—**  
Ludlow-Saylor Wire Co., St. Louis, Mo.

**Screens, Revolving—**  
Allis-Chalmers Co., Home Insurance  
Bldg., Chicago, Ill.

Thomas Carlin's Sons, Allegheny, Pa.  
H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.

Harrington & King Perforating Co., 224  
N. Union St., Chicago, Ill.

Howard & Morse, 45 Fulton St., N. Y.  
Jeffrey Mfg. Co., Columbus, O.

Charles Mundt & Sons, 441-447 Pearl St.,  
New York.

W. E. Tyler Co., Cleveland, O.  
Wright Wire Co., Worcester, Mass.

**Screens, Sand and Coal  
&c.—**

Borden & Selleck Co., 48 Lake St., Chi-  
cago, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.  
H. W. Caldwell & Son Co., Western Ave.  
and 17th St., Chicago, Ill.

Geo. V. Cresson Co., 18th St. & Alle-  
gheny Ave., Philadelphia, Pa.

Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St.,  
New York.

Gilbert & Bennett Mfg. Co., 277 Broad-  
way, New York.

Glen Mfg. Co., Ellwood City, Pa.  
Harrington & King Perforating Co., 224  
No. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.  
Howard & Morse, 45 Fulton St., N. Y.

C. W. Hunt Co., West New Brighton,  
N. Y.

Jeffrey Mfg. Co., Columbus, O.  
Link-Belt Engineering Co., Nicetown,  
Philadelphia, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.

Charles Mundt & Sons, 441-447 Pearl St.,  
New York.

Osborn Mfg. Co., Cleveland, O.  
Turner, Vaughn & Taylor Co., Cuyahoga,  
Falls, O.

W. S. Tyler Co., Cleveland, O.  
Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

**Screens, Window—**  
Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

A. J. Phillips Co., Fenton, Mich.

**Screens, Window, to Order—**  
Phenix Mfg. Co., Milwaukee, Wis.

A. J. Phillips Co., Fenton, Mich.

**Screens, Wire Cloth—**  
(See Cloth, Window Screen.)

**Screw Cases—**  
(See Cases, Screw and Bolt.)

**Screw Cutting Die Heads—**  
(See Die Heads, Screw Cutting.)

**Screw Cutting Dies—**  
(See Stocks, Taps and Dies.)

**Screw Driver Bits, Hold-  
ers—**

(See Bits, Holders.)

**Screw Drivers—**  
(See Drivers, Screw.)

**Screw Holder and Driver—**  
(See Drivers, Screw and Holder.)

**Screw Hook Hinges—**  
(See Hinges, Screw Hook or Strap and  
Eye.)

**Screw Jacks, Plates, Press-  
es, Pulleys, Wrenches—**

(See Jacks, Plates, Presses, Pulleys,  
Wrenches.)

**Screw Machine Products—**

Atlantic Machine Screw Co., Boston, Mass.  
F. H. Smith Mfg. Co., 18-30 W. Randolph  
St., Chicago, Ill.

**Screw Machines—**

Automatic Machine Co., Greenfield, Mass.  
Brown & Sharpe Mfg. Co., Providence,  
R. I.

Draper Mach. Tool Co., Worcester, Mass.  
Dresses Machine Tool Co., Cincinnati, O.

Foster-Kimball Machine Co., Chicago, Ill.  
Garvin Machine Co., Spring & Varick  
Sts., New York.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.  
Jones & Lamson Machine Co., Spring-  
field, Vt.

J. J. McCabe, 14 Dey St., New York.

E. J. Manville Mach. Co., Waterbury, Ct.  
Niles-Bement-Pond Co., 135-138 Liberty  
St., New York.

Pratt & Whitney Co., Hartford, Ct.

**MERCHANTS.**

George E. Amleck, 107 Liberty St., N. Y.  
Baird Machinery Co., Pittsburgh, Pa.

J. H. Dawson Machinery Co., 39 S. Canal  
St., Chicago, Ill.

Fairbanks Co., 415 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.

Marshall & Huchart Machinery Co.,  
62-64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal  
St., Chicago, Ill.

Prentiss Tool & Supply Co., 115 Liberty  
St., New York.

Stiles-Morse Co., 63 W. Washington St.,  
Chicago, Ill.

**Screw Machines, Sheet  
Metal—**

E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N.  
Clinton St., Chicago, Ill.

Chas. Leffler & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo,  
N. Y.

**Screw Machines, Tools for—**  
Brown & Sharpe Mfg. Co., Providence,  
R. I.

Garvin Machine Co., Spring and Varick  
Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

**Screw Rods—**  
(See Rods, Screw.)

**Screws, Bed—**  
Shelton Co., Derby, Ct.

Upon Nut Co., Cleveland, O.

**Screws, Bench—**

R. Bliss Mfg. Co., Pawtucket, R. I.  
Ohio Tool Co., Columbus, O.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.

- School Outfits, Manual Training—**  
Buffalo Forge Co., Buffalo, N. Y.
- Schools, Manual Training—**  
Washburn Shops, Worcester, Mass.
- Scissors—**  
(See Shears and Scissors.)
- Scissors, Bent—**  
Wiebusch & Hilger, 9-15 Murray St., New York.
- Scissors, Button Hole—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Schatt & Morgan Cutlery Co., Titusville, Pa.**
- Wiebusch & Hilger, 9-15 Murray St., New York.**
- Scissors, Embroidery—**  
Wiebusch & Hilger, 9-15 Murray St., New York.
- Scissors, Kindergarten—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Scissors, Pocket—**  
Acme Shear Co., Bridgeport, Ct.  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- R. Heinsch's Sons Co., Newark, N. J.**
- Mt. Pleasant Tool Co., Mt. Pleasant, Pa.**
- National Cutlery Co., Lehigh Ave., American & Third Sts., Philadelphia.**
- Wiebusch & Hilger, 9-15 Murray St., New York.**
- Scoop Forks, Vegetable.**
- Beet, Potato, &c.—**  
Cleveland Lock Co., Cleveland, O.  
Iowa Farming Tool Co., Fort Madison, Ia.
- Withington & Cooley Mfg. Co., Jackson, Mich.**
- Scoop Nets—**  
(See Nets, Scoop.)
- Scoops, Candy—**  
John Chatillon & Sons, 85 Cliff St., N. Y.
- Scoops, Cheese—**  
American Cutlery Co., Chicago, Ill.
- Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.**
- Scoops, Furnace, Pole Hole—**  
(See Shovels and Scoops.)
- Scoops, Grain, Coal, &c.—**  
Avery Stamping Co., Cleveland, O.  
Mt. Pleasant Tool Co., Mt. Pleasant, Pa.
- Star Shovel & Range Co., Vincennes, Ind.**
- Scoops, Wire, Fruit and Vegetable—**  
Cleveland Lock Co., Cleveland, O.
- Scoops, Wood—**  
John Sommer's Son, Newark, N. J.
- Scrap—**  
(See Material, Old.)
- Scrapers and Buffer Steels—**  
(See Steels, Buffer and Scraper.)
- Scrapers, Block—**  
L. S. Starrett Co., Athol, Mass.
- Scrapers, Boiler Flue—**  
(See Cleaners, Flue.)
- Scrapers, Box—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.
- Chapin-Stephens Co., Pine Meadow, Ct.**
- Peck, Stow & Wilcox Co., 27 Murray St., New York.**
- Stanley Rule & Level Co., New Britain, Ct.**
- Scrapers, Butchers' Block—**  
John Chatillon & Sons, 85 Cliff St., N. Y.
- National Saw Co., Newark, N. J.**
- Simonds Mfg. Co., Fitchburg, Mass.**
- Scrapers, Cabinet and Bench—**  
E. C. Atkins & Co., Indianapolis, Ind.
- Geo. H. Bishop & Co., Cincinnati, O.**
- Henry Diaston & Sons, Philadelphia, Pa.**
- C. E. Jennings Co., 42 Murray St., N. Y.**
- National Saw Co., Newark, N. J.**
- Simonds Mfg. Co., Fitchburg, Mass.**
- Scrapers, Ditching—**  
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Scrapers, Floor—**  
Osborn Mfg. Co., Cleveland, O.
- L. S. Starrett Co., Athol, Mass.**
- Scrapers, Flue—**  
(See Cleaners, Flue.)
- Scrapers, Foot—**  
Arcade Mfg. Co., Freeport, Ill.
- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.**
- John C. Kuperle, St. Louis, Mo.**
- Peck, Stow & Wilcox Co., 27 Murray St., New York.**
- Pleuger & Henger Mfg. Co., St. Louis.**
- Reading Hardware Co., Reading, Pa.**
- Richards Mfg. Co., Aurora, Ill.**
- Root Bros. Co., Plymouth, O.**
- Sargent & Co., 151 Leonard St., N. Y.**
- Stover Mfg. Co., Freeport, Ill.**
- Wilcox Mfg. Co., Aurora, Ill.**
- A. C. Williams, Ravenna, O.**
- Scrapers, Hog—**  
John Chatillon & Sons, 85 Cliff St., N. Y.
- W. J. Clark Co., Salem, O.**
- Peck, Stow & Wilcox Co., 27 Murray St., New York.**
- Smith & Hemenway Co., 236 Broadway, New York.**
- Scrapers, Ice—**  
(See Ice Harvesting Tools.)
- Scrapers, Kettle—**  
F. E. Kohler & Co., Canton, O.
- Wire Goods Co., Worcester, Mass.**
- Scrapers, Machinists—**  
Henry Diaston & Sons, Philadelphia, Pa.
- Nicholson File Co., Providence, R. I.**
- Scrapers, Plumbers—**  
Dane, Stoddard & Co., Boston, Mass.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.**
- Scrapers, Road—**  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
- Kilbourne & Jacobs Mfg. Co., Columbus, O.**
- Chilled Plow Co., Syracuse, N. Y.**
- Scrapers, Shovel—**  
Arcade Mfg. Co., Freeport, Ill.
- Scrapers, Stable—**  
A. J. Phillips Co., Canton, Mich.
- Scrapers, Veneer—**  
Stanley Rule & Level Co., New Britain, Ct.
- Scrapers, Walk and Street—**  
American Fork & Hoe Co., Cleveland, O.
- Iowa Farming Tool Co., Fort Madison, Ia.**
- F. E. Kohler & Co., Canton, O.**
- Scrapers, Wall—**  
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Henry Diaston & Sons, Philadelphia, Pa.**
- C. E. Jennings Co., 42 Murray St., N. Y.**

National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.

**Screaming Wires—**  
(See Knives, Electrician.)

**Scratch Awls, Gauges—**  
(See Awls, Gauges.)

**Screen Bolts, Doors, &c.—**  
(See Bolts, Doors, &c.)

**Screens, Fire, Folding—**  
S. M. Howes Co., Boston, Mass.

**Screens, Radiator—**  
Ludlow-Saylor Wire Co., St. Louis, Mo.

**Screens, Revolving—**  
Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.

Thomas Carlin's Sons, Allegheny, Pa.  
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Howard & Morse, 45 Fulton St., N. Y.

Jeffrey Mfg. Co., Columbus, O.

Charles Mundt & Sons, 41-47 Pearl St., New York.

W. S. Tyler Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Screens, Sand and Coal, &c.—**

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Howard & Morse, 45 Fulton St., N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Charles Mundt & Sons, 41-47 Pearl St., New York.

Osborn Mfg. Co., Cleveland, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

W. S. Tyler Co., Cleveland, O.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

**Screens, Window—**  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

A. J. Phillips Co., Fenton, Mich.

**Screens, Window, to Order—**  
Phenix Mfg. Co., Milwaukee, Wis.

A. J. Phillips Co., Fenton, Mich.

**Screen Wire Cloth—**  
(See Cloth, Window Screen.)

**Screw Cases—**  
(See Cases, Screw and Bolt.)

**Screw Cutting Die Heads—**  
(See Die Heads, Screw Cutting.)

**Screw Cutting Dies—**  
(See Stocks, Taps and Dies.)

**Screw Driver Bits, Holders—**  
(See Bits, Holders.)

**Screw Drivers—**  
(See Drivers, Screw.)

**Screw Holder and Driver—**  
(See Drivers, Screw and Holder.)

**Screw Hook Hinges—**  
(See Hinges, Screw Hook or Strap and Eye.)

**Screw Jacks, Plates, Presses, Pulleys, Wrenches—**  
(See Jacks, Plates, Presses, Pulleys, Wrenches.)

**Screw Machine Products—**  
Atlantic Machine Screw Co., Boston, Mass.

F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

**Screw Machines—**  
Automatic Machine Co., Greenfield, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Draper Mach. Tool Co., Worcester, Mass.

Dresser Machine Tool Co., Cincinnati, O.

Foster-Kimball Machine Co., Chicago, Ill.

Garvin Machine Co., Spring & Varick Sts., New York.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Jones & Lamson Machine Co., Springfield, Vt.

J. J. McCabe, 14 Dey St., New York.

E. E. Manville Mach. Co., Waterbury, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

**MERCHANTS.**  
George E. Affleck, 107 Liberty St., N. Y.

Baird Machine Co., Pittsburgh, Pa.

F. H. Dawson Machinery Co., 39 S. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Stiles-Morse Co., 63 W. Washington St., Chicago, Ill.

**Screw Machines, Sheet Metal—**  
E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.

**Screw Machines, Tools for—**  
Brown & Sharpe Mfg. Co., Providence, R. I.

Garvin Machine Co., Spring and Varick Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

**Screw Rods—**  
(See Rods, Screw.)

**Screws, Bed—**  
Shelton Co., Derby, Ct.

Upson Nut Co., Cleveland, O.

**Screws, Bench—**  
R. Bliss Mfg. Co., Pawtucket, R. I.

Ohio Tool Co., Columbus, O.

Peck, Stow & Wilcox Co., 21 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

**Screws, Cap and Set—**

American Iron & Steel Mfg. Co., Lebanon, Pa.  
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.  
Cincinnati Screw & Tap Co., Cincinnati.  
Clark Bros. Bolt Co., Milldale, Ct.  
Eastern Bolt & Nut Co., Providence, R. I.  
Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Harvey Hubbell, Bridgeport, Ct.  
Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

Milton Mfg. Co., Milton, Pa.  
New Britain Hardware Mfg. Co., New Britain, Ct.

Niagara Screw Co., Buffalo, N. Y.  
Pittsburgh Screw & Bolt Co., Pittsburgh.

Rhode Island Tool Co., Providence, R. I.  
Rockford Bolt Works, Rockford, Ill.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

Upson Nut Co., Cleveland, O.  
Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

Worcester Machine Screw Co., Worcester, Mass.

**Screws, Cap. for Locks—**

American Screw Co., Providence, R. I.

**Screws, Coach and Lag—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Cincinnati Screw & Tap Co., Cincinnati.  
Clark Bros. Bolt Co., Milldale, Ct.

Eastern Bolt & Nut Co., Providence, R. I.  
Sam'l Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lams & Sons, Pittsburgh, Pa.  
Milton Mfg. Co., Milton, Pa.

Reading Screw Co., Norristown, Pa.  
Republic Iron & Steel Co., Chicago, Ill.

Rockford Bolt Works, Rockford, Ill.  
Shelton Co., Derby, Ct.

Upson Nut Co., Cleveland, O.  
Wilson & Smith, Worcester, Mass.

**Screws, Collar—**

Atlantic Machine Screw Co., Boston, Mass.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati.  
Eastern Bolt & Nut Co., Providence, R. I.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

New Britain Hardware Mfg. Co., New Britain, Ct.

Niagara Screw Co., Buffalo, N. Y.  
Pittsburgh Screw & Bolt Co., Pittsburgh.

Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

Worcester Machine Screw Co., Worcester, Mass.

**Screws, Cork—**

Rockwell Clough Co., Alton, N. H.  
Danne, Stockard & Co., Boston, Mass.

Eric Specialty Co., Erie, Pa.  
Smith & Hemenway Co., 296 Broadway, New York.

C. T. Williamson Wire Novelty Co., Newark, N. J.

**Screws, Drive—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

**Screws, Guitar and Violin**

**Clamp—**  
R. Bliss Mfg. Co., Pawtucket, R. I.

**Screws, Hand—**

R. Bliss Mfg. Co., Pawtucket, R. I.  
Chapin-Stephens Co., Pine Meadow, Ct.

Ohio Tool Co., Columbus, O.

**Screws, Hand Rail—**

American Screw Co., Providence, R. I.  
Parker Wire Goods Co., Worcester, Mass.

Sargent & Co., 151 Leonard St., N. Y.  
Wire Goods Co., Worcester, Mass.

**Screws, Hanger—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Eastern Bolt & Nut Co., Providence, R. I.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Reading Screw Co., Norristown, Pa.  
Upson Nut Co., Cleveland, O.

**Screw Shaving Machines—**

(See Shaving Machines, Screw.)  
**Screws, Hook and Eye—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

W. & J. Tiebout, 118 Chambers St., N. Y.

**Screws, Knob—**

American Screw Co., Providence, R. I.  
Reading Screw Co., Norristown, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

**Screws, Looking Glass—**

Sargent & Co., 151 Leonard St., N. Y.

**Screws, Machine—**

American Screw Co., Providence, R. I.  
Atlantic Machine Screw Co., Boston, Mass.

Automatic Machine Co., Greenfield, Mass.  
Atlas Car & Mfg. Co., Cleveland, O.

Blake & Johnson, Waterbury, Ct.  
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati.  
Harvey Hubbell, Bridgeport, Ct.

Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

Thomas A. Mack Mfg. Co., Jersey City, N. J.

New Britain Hardware Mfg. Co., New Britain, Ct.

Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh.  
Progressive Mfg. Co., Torrington, Ct.

Reading Screw Co., Norristown, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.

Worcester Machine Screw Co., Worcester, Mass.

**Screws, Ore Washer—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

**Screws, Piano Hardware—**

Progressive Mfg. Co., Torrington, Ct.

**Screws, Piano Stool—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Sargent & Co., 151 Leonard St., N. Y.

**Screws, Saw—**

Geo. H. Bishop & Co., Cincinnati, O.  
Henry Disston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.  
Reading Screw Co., Norristown, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Simonds Mfg. Co., Fitchburg, Mass.

**Screws, Shutter, Store Door—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Screws, Special—**

Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
Atlantic Machine Screw Co., Boston, Mass.  
Automatic Machine Co., Greenfield, Mass.  
Chas. H. Bealy & Co., 10-12 No. Canal St., Chicago, Ill.  
Blake & Johnson, Waterbury, Ct.  
Cincinnati Screw & Tap Co., Cincinnati, O.  
Eastern Bolt & Nut Co., Providence, R. I.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
Harvey Hubbell, Bridgeport, Ct.  
Thomas A. Mack Mfg. Co., Jersey City, N. J.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.  
New Britain Hardware Mfg. Co., New Britain, Ct.  
Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.  
Progressive Mfg. Co., Torrington, Ct.  
Reading Screw Co., Norristown, Pa.  
F. H. Smith Mfg. Co., 15-30 W. Randolph St., Chicago, Ill.  
Springfield Machine Screw Co., Springfield, Mass.

**Screws, Thumb—**

Chas. H. Bealy & Co., 10-12 No. Canal St., Chicago, Ill.  
Billings & Spencer Co., Hartford, Ct.  
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.  
Cincinnati Screw & Tap Co., Cincinnati, O.  
Eastern Bolt & Nut Co., Providence, R. I.  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
Illinois Screw Co., 20 So. Canal St., Chicago, Ill.

Keystone Drop Forge Works, Chester, Pa.  
Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.  
Rockford Bolt Works, Rockford, Ill.  
Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.  
J. H. Williams & Co., Brooklyn, N. Y.  
Wire Goods Co., Worcester, Mass.

**Screws, Window Stop—**

Sargent & Co., 151 Leonard St., N. Y.

**Screws, Wing—**

M. S. Brooks & Sons, Chester, Ct.  
Reading Screw Co., Norristown, Pa.

**Screws, Wood—**

American Screw Co., Providence, R. I.  
Cincinnati Screw & Tap Co., Cincinnati, O.

Reading Hardware Co., Reading, Pa.  
Reading Screw Co., Norristown, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

**Scribers, Metal—**

Sawyer Tool Mfg. Co., Fitchburg, Mass.  
L. S. Starrett Co., Athol, Mass.

**Scribes, Timber—**

Bemis & Call Hardware & Tool Co., Springfield, Mass.

**Scribing Blocks—**

(See Blocks, Scribing.)

**Scroll Saws and Scroll Saw Blades—**

(See Saws, Scroll, and Scroll Saw Blades.)

**Scrub Brushes—**

(See Brushes, Whitewash, Horse, &c.)

**Scuffle Hoes—**

(See Hoes, Scuffle.)

**Scythes—**

Wiebusch & Hilger, 9-15 Murray St., N. Y.

**Scythe Stones—**

(See Stones.)

**Seal Presses—**

(See Presses, Seal.)

**Seals, Machinery for Making Car—**

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

**Seals, Notary, &c.—**

Schwerdtle Stamp Co., Bridgeport, Ct.  
Seals, Sealing Devices, &c.—

Theo. Hertz Metal Co., St. Louis, Mo.  
R. Woodman Mfg. & Supply Co., Boston.

**Seals, Strap—**

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

**Seals, Ball Valve—**

Federal Mfg. Co., Cleveland, O.

**Seals, Presses—**

Avery Stamping Co., Cleveland, O.  
Cheswick Mfg. Co., Cheswick, Pa.

**Second Hand Electrical Machines—**

Stewart Electrical Co., Cincinnati, O.  
Wickes Bros., Saginaw, Mich.  
**Second Hand Machinery—**  
Geo. E. Affleck, 109 Liberty St., N. Y.

American Tool Works Co., Cincinnati, O.  
Apex Equipment Co., 11 Broadway, N. Y.  
Baird Machinery Co., Pittsburgh, Pa.

Chas. Behlen, 72 Trinity Place, N. Y.  
Geo. H. Bowler, Cleveland, O.  
Bosworth Holding Co., Cleveland, O.

Marvin Briggs, 12 Broadway, New York  
Browning Engineering Co., Cleveland, O.  
Caine & Plitt, Real Estate Trust Bldg., Philadelphia, Pa.

Carlin Machinery & Supply Co., Allegheny, Pa.  
Chicago House Wrecking Co., W. 35th and Iron Sts., Chicago, Ill.

Colborne Mfg. Co., 35 Indiana Ave., Chicago, Ill.  
John W. Cole, Providence, R. I.

T. P. Conard, 119 So. 4th St., Philadelphia, Pa.  
Contractors' Equipment Co., Bets Bldg., Philadelphia, Pa.

R. M. Cunliffe, 1142 Washington Ave., Philadelphia, Pa.  
Cutter, Wood & Stevens Co., Boston, Mass.

A. L. Dawson & Co., 27-31 Washington St., Chicago, Ill.  
J. H. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.



- Wm. J. Dunn, Fall River, Mass.  
 Charles E. Dustin Co., 11 Broadway,  
 New York.  
 Wm. Eckhold's Sons, 711 E. Girard Ave.,  
 Philadelphia, Pa.  
 B. M. Everson, Pittsburgh, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Fulton Blower & Supply Co., 180 Fulton  
 St., New York.  
 Garvin Machine Co., Spring & Varick  
 Sts., New York.  
 Haanon & Finton, Springfield, Mass.  
 Henry F. Hill, Boston, Mass.  
 Hill, Clarke & Co., Boston, Mass.  
 J. H. Hillman & Son, Pittsburgh, Pa.  
 Henry A. Hitner's Sons, Huntington St.  
 and Aramingo Ave., Philadelphia, Pa.  
 W. C. Johnson & Sons Machinery Co.,  
 St. Louis, Mo.  
 Isaac Joseph Iron Co., Monadnock Block,  
 Chicago, Ill.  
 A. V. Kaiser & Co., 222 So. 3d St., Phil-  
 adelphia, Pa.  
 Lodge & Shipley Machine Tool Co., Cin-  
 cinnati, O.  
 Lovegrove & Co., 143-145 No. 3d St.,  
 Philadelphia, Pa.  
 Manning, Maxwell & Moore, 85 Liberty  
 St., New York.  
 Marshall & Hushart Machine Co., 62-  
 64 So. Canal St., Chicago, Ill.  
 F. B. Maxim, Boston, Mass.  
 J. J. McCabe, 14 Dey St., New York.  
 McDowell & Co., Pittsburgh, Pa.  
 McDowell, Stocker & Co., 99-61 So. Canal  
 St., Chicago, Ill.  
 Mertes Machine Co., Milwaukee, Wis.  
 New York Machinery Depot, 178 Broad-  
 way, New York.  
 Niles-Bement-Pond Co., 136-138 Liberty  
 St., New York.  
 Northern Machinery Co., Minneapolis,  
 Minn.  
 F. L. Patterson & Co., 26 Cortlandt St.,  
 New York.  
 Payne & Co., Elmira, N. Y.  
 F. R. Phillips & Sons Co., Philadelphia.  
 Poulterer & Co., Bullitt Bldg., Phila-  
 delphia, Pa.  
 Pratt & Whitney Co., Hartford, Ct.  
 Prentiss Tool & Supply Co., 115 Liberty  
 St., New York.  
 Rossiter, MacGovern & Co., 17 Battery  
 Place, New York.  
 Joseph T. Ryerson & Son, 18-22 Milwau-  
 kee Ave., Chicago, Ill.  
 L. F. Seyfert's Sons, 437 No. 3d St.,  
 Philadelphia, Pa.  
 R. R. Sherman & Co., Boston, Mass.  
 Shook & Fletcher, Birmingham, Ala.  
 Jno. Steptoe Shaper Co., Cincinnati, O.  
 Stiles-Morse Co., 63 W. Washington St.,  
 Chicago, Ill.  
 Thomas & Lowe Machinery Co., Provid-  
 ence, R. I.  
 Thompson, Son & Co., 114 Liberty St.,  
 New York.  
 Frank Toomey, 127-131 No. 3d St., Phil-  
 adelphia, Pa.  
 Union Rail Co., Huntington, W. Va.  
 Von Wyck Machine Tool Co., Cincin-  
 nati, O.  
 E. H. Wachs Co., 158 Indiana St., Chi-  
 cago, Ill.  
 Walsh's Sons & Co., Newark, N. J.  
 William Ward, Pittsburgh, Pa.
- Whitehead Machinery Co., Davenport, Ia.  
 Wickes Bros., Saginaw, Mich.  
 E. O. Williams, 63 So. Canal St., Chi-  
 cago, Ill.  
 C. C. Wormer Machinery Co., Detroit,  
 Mich.
- Section Liners—**  
 (See Liners, Section.)
- Sections, Mower and Reap-  
 er—**  
 Whitman & Barnes Mfg. Co., Akron, O.  
**Seed Cases, Sowers—**  
 (See Cases, Sowers.)
- Seeders, Broadcast—**  
 W. J. Adam, Joliet, Ill.  
 Cutaway Harrow Co., Higganum, Ct.
- Seeders, Cherry—**  
 (See Stoners, Cherry.)
- Seeders, Raisin—**  
 Enterprise Mfg. Co., Philadelphia, Pa.  
 Union Mfg. & Specialty Co., Buffalo,  
 N. Y.
- A. C. Williams, Ravenna, O.
- Segments, Commutator—**  
 (See Commutator Bars and Segments.)
- Selling Agents, Hardware—**  
 (See Agents, Hardware Manufacturers.)
- Separators, Egg—**  
 Wire Goods Co., Worcester, Mass.
- Separators, Magnetic—**  
 Geo. V. Cresson Co., 18th St. and Alle-  
 gheny Ave., Philadelphia, Pa.  
 General Electric Co., Schenectady, N. Y.
- Separators, Oil—**  
 Burt Mfg. Co., Akron, O.  
 Harrison Safety Boiler Works, 3194 N. 17th  
 St., Philadelphia, Pa.  
 Frank L. Patterson & Co., 26 Cortlandt  
 St., New York.  
 Warren Webster & Co., Camden, N. J.  
 Whitlock Coil Pipe Co., Hartford, Ct.
- Separators, Steam—**  
 Julian D'Este Co., Boston, Mass.  
 Harrison Safety Boiler Works, 3194 N. 17th  
 St., Philadelphia, Pa.  
 Nazareth Foundry & Machine Co., Naz-  
 areth, Pa.  
 F. L. Patterson & Co., 26 Cortlandt St.,  
 New York.
- Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Warren Webster & Co., Camden, N. J.  
 Whitlock Coil Pipe Co., Hartford, Ct.  
 Wickes Bros., Saginaw, Mich.
- Servers, Salad—**  
 American Cutlery Co., Chicago, Ill.
- Sets, Assorted Lathe Tool  
 and Fixture—**  
 O. Patent Tool Holder Co., Shelton,  
 Ct.
- L. S. Starrett Co., Athol, Mass.
- Sets, Combination—**  
 L. S. Starrett Co., Athol, Mass.
- Sets, Communion, Silver  
 Plated—**  
 International Silver Co., 9-13 Maiden  
 Lane, New York.
- Set Screws—**  
 (See Screws, Cap and Set.)
- Sets, Croquet—**  
 R. Bliss Mfg. Co., Pawtucket, R. I.
- Sets, Door, Screen and  
 Storm—**  
 National Mfg. Co., Sterling, Ill.
- Sets, Garden Tool—**  
 American Fork & Hoe Co., Cleveland, O.  
 Arcade Mfg. Co., Freeport, Ill.

Iowa Farming Tool Co., Fort Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson, Mich.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Sets, Grommet—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.

**Sets, Hook—**  
Eyelet Tool Co., Boston, Mass.

**Sets, Nail—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
Charles Buck, Millbury, Mass.

Buck Bros., Millbury, Mass.  
Goodell-Pratt Co., Greenfield, Mass.  
Hurwood Mfg. Co., Bridgeport, Ct.  
O. E. Jennings Co., 42 Murray St., N. Y.  
Keystone Mfg. Co., Buffalo, N. Y.  
H. H. Mayhew Co., Shelburne Falls, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Snell Mfg. Co., Fiskdale, Mass.

Springfield Machine Screw Co., Springfield, Mass.

L. B. Starrett Co., Athol, Mass.

Storn Mfg. Co., Newark, N. J.

Tuck Mfg. Co., Brockton, Mass.

**Sets, Rivet—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.  
Eyelet Tool Co., Boston, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Springfield Machine Screw Co., Springfield, Mass.

**Sets, Saw—**

E. C. Atkins & Co., Indianapolis, Ind.  
Bemis & Gail Hardware & Tool Co., Springfield, Mass.

Henry Disston & Sons, Philadelphia, Pa.  
Filer & Stowell Co., Milwaukee, Wis.

John H. Graham & Co., 113 Chambers St., New York.

Kilborn & Bishop Co., New Haven, Ct.  
F. E. Kohler & Co., Canton, O.

Fred J. Meyers Mfg. Co., Hamilton, O.  
Chas. Morrill, 277 Broadway, N. Y.

National Saw Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Simonds Mfg. Co., Fitchburg, Mass.

Smith & Hemenway Co., 236 Broadway, New York.

Springfield Machine Screw Co., Springfield, Mass.

Taintor Mfg. Co., 113 Chambers St., N. Y.

**Sets, Screw Driver and Tool—**

John S. Fray & Co., Bridgeport, Ct.  
Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Sets, Shaving—**  
Smith & Hemenway Co., 236 Broadway, New York.

**Sets, Soldering—**  
Arcade Mfg. Co., Freeport, Ill.

W. L. Barrett, Erie, Ct.  
Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 236 Broadway, New York.

Stover Mfg. Co., Freeport, Ill.

**Sets, Tea, Coffee, Curling, Manicure, Smokers', &c., Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Sets, Tool, Hollow Handle—**

John S. Fray & Co., Bridgeport, Ct.  
C. E. Jennings Co., 42 Murray St., N. Y.

Millers Falls Co., 28 Warren St., N. Y.  
Sargent & Co., 151 Leonard St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

**Settees, Lawn—**

(See Chairs and Settees, Lawn.)

**Setting and Filing Machines, Saw—**

Detrick & Harvey Machine Co., Baltimore.

Henry Disston & Sons, Philadelphia, Pa.

**Sewer Castings—**  
(See Castings, Man Hole, Cistern Cover, Sewer Gutter, Crossing, &c.)

**Sewer Connections—**

(See Boots.)

**Sewer Gratings—**

(See Gratings, Foundation, Sewer, &c.)

**Sewing Benches—**

(See Benches, Sewing.)

**Sewing Machine Attachments—**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

**Sewing Machine Parts—**

Federal Mfg. Co., Cleveland, O.

**Sewing Machines—**

Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.

National Sewing Machine Co., Belvidere, Ill.

Remington Arms Co., 313 Broadway, N. Y.

**Sextants—**

Keuffel & Esser Co., 127 Fulton St., N. Y.  
Riggs & Bro., 310 Market St., Philadelphia, Pa.

**Shackle Bolts, Milled—**  
Blakelee Forging Co., Plantville, Ct.

**Shackles, Chain—**

James McKay & Co., Pittsburgh, Pa.  
Standard Chain Co., Pittsburgh, Pa.

**Shackles, Shaft, Safety—**

R. H. Brown & Co., New Haven, Ct.  
A. Leschen & Sons Rope Co., St. Louis.

**Shade Cord—**

(See Cord, Shade and Ventilator.)

**Shade Pulleys—**

(See Pulleys, Self Adjustable Shade.)

**Shade Roller Brackets and Fixtures—**

(See Brackets and Fixtures, Shade Roller.)

**Shaft Adjusters, Hangers, &c.—**

(See Adjusters, Hangers, &c.)

**Shaft, Flexible—**

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Gem Mfg. Co., Pittsburgh, Pa.

Hyatt Roller Bearing Co., Harrison, N. J.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Birmingham, N. Y.

**Shafting—**

Allis-Chalmers Co., Home Insurance Bldg., Chicago, Ill.  
 American Tool & Machine Co., Boston.  
 Baker Bros., Toledo, O.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Borden & Selleck Co., 48 Lake St., Chicago, Ill.  
 Brightman Mfg. Co., Shelby, O.  
 Buhl Malleable Co., Detroit, Mich.  
 Case Mfg. Co., Columbus, O.  
 Cleveland City Forge & Iron Co., Cleveland, O.  
 Columbia Bridge Co., Pittsburgh, Pa.  
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.  
 Cumberland Steel Co., Cumberland, Md.  
 Barclay M. Everson, Pittsburgh, Pa.  
 Farrel Foundry & Mach. Co., Ansonia, Ct.  
 Finished Steel Co., Youngstown, O.  
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.  
 Howard Iron Works, Buffalo, N. Y.  
 Jeffrey Mfg. Co., Columbus, O.  
 Jones & Laughlin Steel Co., Pittsburgh.  
 Lane & Bodley Co., Cincinnati, O.  
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
 Minneapolis Steel & Machine Co., Minneapolis, Minn.  
 C. Pardee Works, Perth Amboy, N. J.  
 F. R. Patch Mfg. Co., Rutland, Vt.  
 Poole Engineering & Machine Co., Baltimore, Md.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Wm. Sellers & Co. (Inc.), Philadelphia, Pa.  
 Southern Engine & Boiler Works, Jackson, Tenn.  
 Tindel-Morris Co., Eddystone, Pa.  
 Titusville Forge Co., Titusville, Pa.  
 Edgar T. Ward & Sons, Boston, Mass.  
 Warsaw Elevator Co., Warsaw, N. Y.  
 Wolf Co., 523 No. 23d St., Philadelphia, Pa.

**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.  
 Bassett-Presley Co., Cleveland, O.  
 Bourne-Fuller Co., Cleveland, O.  
 Brown-Wales Co., Boston, Mass.  
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.  
 W. E. Caldwell Co., Louisville, Ky.  
 Charter Gas Engine Co., Sterling, Ill.  
 W. P. Davis Machine Co., Rochester, N. Y.  
 Denman & Davis, 85 John St., New York.  
 Dodge Mfg. Co., Mishawaka, Ind.  
 Fairbanks Co., 416 Broome St., New York.  
 I. & E. Greenwald Co., Cincinnati, O.  
 Mertes Machinery Co., Milwaukee, Wis.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.  
 Pierson & Co., 29 Broadway, New York.  
 Joseph T. Ryerson & Son, 18 Milwaukee Ave., Chicago, Ill.  
 L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.  
 Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.  
 Wickes Bros., Saginaw, Mich.

**Shafting Agricultural—**

Brightman Mfg. Co., Shelby, O.  
 Columbia Bridge Co., Pittsburgh, Pa.

**Shafting Collars, Oilers—**  
(See Collars, Oilers.)**Shafting, Polished—**

Brightman Mfg. Co., Shelby, O.  
 Columbia Bridge Co., Pittsburgh, Pa.  
 Cumberland Steel Co., Cumberland, Md.  
 Finished Steel Co., Youngstown, O.

**Shaft Levels—**

(See Levels, Shaft.)

**Shafts, Crank—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Columbia Bridge Co., Pittsburgh, Pa.  
 Tindel-Morris Co., Eddystone, Pa.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.  
 Wyman & Gordon, Worcester, Mass.

**Shafts, Forged—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
 Columbia Bridge Co., Pittsburgh, Pa.

**Shaft Straightening Machinery—**

Bradford Mach. Tool Co., Cincinnati, O.  
 Brightman Mfg. Co., Shelby, O.  
 Diamond Drill & Machine Co., Birdsboro, Pa.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 Springfield Machine Tool Co., Springfield, O.  
 Watson-Stimman Co., 204-210 East 43d St., New York.  
 Wickes Bros., Saginaw, Mich.

**Shaft Trimmings, Leather—**  
(See Trimmings, Shaft, Leather.)**Shaker Salts—**  
(See Salts, Shaker.)**Shakers, Drink—**

Erie Specialty Co., Erie, Pa.

**Shakers, Stove—**

S. Cheney & Son, Manlius, N. Y.

**Shapers—**

American Tool Works Co., Cincinnati, O.  
 Baush Machine Tool Co., Springfield, Mass.  
 Bignall & Keeler Mfg. Co., Edwardsville, Ill.  
 Boynton & Plummer, Worcester, Mass.  
 Cincinnati Shaper Co., Cincinnati, O.  
 Colburn Machine Tool Co., Franklin, Pa.  
 Detrick & Harvey Machine Co., Baltimore, Md.  
 Fox Machine Co., Grand Rapids, Mich.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 Gould & Eberhardt, Newark, N. J.  
 Hendey Machine Co., Torrington, Ct.  
 Morton Mfg. Co., Muskegon Heights, Mich.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Pedrick & Ayer Co., 87 Liberty St., N. Y.  
 Potter & Johnston Machine Co., Pawtucket, R. I.  
 Pratt & Whitney Co., Hartford, Ct.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 Springfield Machine Tool Co., Springfield, O.  
 Jno. Steptoe Shaper Co., Cincinnati, O.

**MERCHANTS.**

Geo. E. Affleck, 109 Liberty St., N. Y.  
 Baird Machinery Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Allegheny, Pa.

J. L. Dawson Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Fairbanks Co., 416 Broome St., New York. Hill, Clarke & Co., Boston, Mass.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

J. J. McCabe, 14 Dey St., New York. Manning, Maxwell & Moore, 85 Liberty St., New York.

Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

New Haven Mfg. Co., New Haven, Ct. Northern Machinery Co., Minneapolis, Minn.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.

J. R. Vanduyck Co., 8 Dey St., New York. Wickes Bros., Saginaw, Mich.

C. C. Worner Machinery Co., Detroit, Mich.

**Shapers, Traverse. Single or Double Head—**

Cincinnati Shaper Co., Cincinnati, O. Morton Mfg. Co., Muskegon Heights, Mich.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Wm. Sellers & Co. (Inc.), Philadelphia.

**Shapes, Agricultural—**

American Steel Hoop Co., Pittsburgh, Pa. Cheswick Mfg. Co., Cheswick, Pa.

Harrow Spring Co., Kalamazoo, Mich. Jones & Laughlin Steel Co., Pittsburgh.

Republic Iron & Steel Co., Chicago, Ill.

**Shapes, Cold Drawn—**

Columbia Bridge Co., Pittsburgh, Pa. Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

**Shapes, Cold Drawn and Polished—**

Columbia Bridge Co., Pittsburgh, Pa.

**Shapes, Crucible Steel—**

Vulcan Crucible Steel Co., Aliquippa, Pa.

**Shapes, Pressed Steel—**

A. Buch's Sons Co., Elizabethtown, Pa. Pressed Steel Tank Co., Milwaukee, Wis.

Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

**Shapes, Sheet Steel, Cut to Order—**

Avery Stamping Co., Cleveland, O. Janney, Steinmetz & Co., 741 Drexel Bldg., Philadelphia, Pa.

R. C. Jenkinson & Co., Newark, N. J.

**Shapes, Special, High Carbon Steel—**

Cheswick Mfg. Co., Cheswick, Pa.

**Shapes, Special Rolled—**

American Steel Hoop Co., Pittsburgh, Pa.

**Sharing and Underpinning—**

John Eichleay, Jr., Co., Pittsburgh, Pa.

**Sharpeners, Disc Harrow—**

M. J. Bartlett & Son, 196 S. Clark St., Chicago, Ill.

**Sharpeners, Dowel—**

Stanley Rule & Level Co., New Britain, Ct.

**Sharpeners, Knife—**

American Emery Wheel Works, Providence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Millers Falls Co., 28 Warren Street, New York.

Mossberg Wrench Co., Central Falls, R. I.

Pike Mfg. Co., Pike, N. H.

Louis Sacks Iron Foundry, Newark, N. J.

Sharpening Emery Wheel Mfg. Co., Timm, O.

**Sharpeners, Mower Knife—**

Outaway Harrow Co., Higanum, Ct.

**Sharpeners, Saw—**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Cutter, Wood & Stevens Co., Boston, Mass.

Diamond Machine Co., Providence, R. I.

Henry Disston & Sons, Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Filer & Stowell Co., Milwaukee, Wis.

Wickes Bros., Saginaw, Mich.

**Sharpeners, Saw. Auto-matic—**

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

**Sharpeners, Skate—**

Osborn Mfg. Co., Cleveland, O.

Pike Mfg. Co., Pike, N. H.

Samuel Winslow Skate Mfg. Co., Worcester, Mass.

**Shavers, Beef—**

(See Cutters, Smoked Beef.)

**Shavers, Bolt Head—**

National Machinery Co., Tiffin, O.

**Shavers, Ice—**

(See Ice Harvesting Tools.)

**Shaves, Ice—**

Arcade Mfg. Co., Freeport, Ill.

Enterprise Mfg. Co., Philadelphia, Pa.

Erie Specialty Co., Erie, Pa.

North Bros. Mfg. Co., Philadelphia, Pa.

Stover Mfg. Co., Freeport, Ill.

L. & I. J. White Co., Buffalo, N. Y.

A. O. Williams, Ravenna, O.

**Shaves, Spoke—**

Chapin-Stephens Co., Pine Meadow, Ct.

Goodell-Pratt Co., Greenfield, Mass.

C. E. Jennings Co., 42 Murray St., N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Union Mfg. Co., New Britain, Ct.

L. & I. J. White Co., Buffalo, N. Y.

**Shaves, Tobacco—**

North Bros. Mfg. Co., Philadelphia, Pa.

**Shaving Cups, Silver Plated—**

(See Cups, Children's, Shaving, Silver Plated.)

**Shaving Machines, Screw—**

Pratt & Whitney Co., Hartford, Ct.

**Shear Blades, Metal—**

(See Blades, Metal Shear.)

**Shearing Machines, Hand—**

Bertsch & Co., Cambridge City, Ind.

Bicknell Hardware Co., Janesville, Wis.

R. E. Kidder, Worcester, Mass.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.

Rock River Machine Co., Janesville, Wis.

- George B. Sennett Co., Youngstown, O.  
**W. C. Young Mfg. Co.**, Worcester, Mass.  
**Shears, Alligator**—  
 National Machinery Co., Tiffin, O.  
**Shears and Scissors**—  
 Acme Shear Co., Bridgeport, Ct.  
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
 R. Heinisch's Sons Co., Newark, N. J.  
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.  
 Schatt & Morgan Cutlery Co., Titusville, Pa.  
 A. L. Silberstein, 459-461 Broadway, N. Y.  
 Smith & Hemenway Co., 236 Broadway, N. Y.  
 Wiebusch & Hilger, 9-15 Murray St., N. Y.  
 (See also Scissors.)  
**Shears and Snips, Dental**—  
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.  
 Wiebusch & Hilger, 9-15 Murray St., N. Y.  
**Shears and Snips, Tinners**—  
 Acme Shear Co., Bridgeport, Ct.  
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
 R. Heinisch's Sons Co., Newark, N. J.  
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.  
 Niagara Machine & Tool Works, Buffalo, N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Smith & Hemenway Co., 236 Broadway, New York.  
 Wiebusch & Hilger, 9-15 Murray St., N. Y.  
**Shears, Bankers' and Paper**—  
 Hanzel & Co., Bridgeport, Ct.  
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
 R. Heinisch's Sons Co., Newark, N. J.  
 National Cutlery Co., Philadelphia, Pa.  
 Schatt & Morgan Cutlery Co., Titusville, Pa.  
 A. L. Silberstein, 459-461 Broadway, N. Y.  
 Smith & Hemenway Co., 236 Broadway, New York.  
 Wiebusch & Hilger, 9-15 Murray St., N. Y.  
**Shears, Barbers'**—  
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.  
 R. Heinisch's Sons Co., Newark, N. J.  
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.  
 Schatt & Morgan Cutlery Co., Titusville, Pa.  
 A. L. Silberstein, 459-461 Broadway, N. Y.  
 Smith & Hemenway Co., 236 Broadway, New York.  
 Wiebusch & Hilger, 9-15 Murray St., N. Y.  
**Shears, Beam and Channel**—  
 Alliance Machine Co., Alliance, O.  
 Bertach & Co., Cambridge City, Ind.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Cincinnati Punch & Shear Co., Cincinnati, O.  
 Cleveland Punch & Shear Works Co., Cleveland, O.  
 Fischer Foundry & Machine Co., Pittsburgh, Pa.  
 A. Garrison Foundry Co., Pittsburgh, Pa.  
 Hilles & Jones Co., Wilmington, Del.  
 George A. Hook Iron & Steel Foundry Co., Pittsburgh, Pa.  
 Long & Allstatter Co., Hamilton, O.  
 New Doty Mfg. Co., Janesville, Wis.
- Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Henry, Fels & Co., 66 Broad St., N. Y.  
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.  
 Roversford Foundry & Machine Co., Roversford, Pa.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 United Engineering & Foundry Co., Pittsburgh, Pa.  
 Watson-Stillman Co., 204-210 East 43d St., New York.  
 Williams, White & Co., Moline, Ill.  
**Shears, Beveling**—  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Cincinnati Punch & Shear Co., Cincinnati, O.  
 Cleveland Punch & Shear Works Co., Cleveland, O.  
 Hilles & Jones Co., Wilmington, Del.  
 Long & Allstatter Co., Hamilton, O.  
 New Doty Mfg. Co., Janesville, Wis.  
 Niagara Machine & Tool Works, Buffalo, N. Y.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
 Rock River Machine Co., Janesville, Wis.  
 Wm. Sellers & Co. (Inc.), Philadelphia.  
 Williams, White & Co., Moline, Ill.  
**Shears, Button Hole**—  
 Acme Shear Co., Bridgeport, Ct.  
 A. L. Silberstein, 459-461 Broadway, N. Y.  
**Shears, Candy**—  
 R. Heinisch's Sons Co., Newark, N. J.  
 Wiebusch & Hilger, 9-15 Murray St., N. Y.  
**Shears, Circular**—  
 E. W. Bliss Co., Brooklyn, N. Y.  
 Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.  
 Gould & Eberhardt, Newark, N. J.  
 Niagara Machine & Tool Works, Buffalo, N. Y.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
**Shears, Electricians'**—  
 A. L. Silberstein, 459-461 Broadway, N. Y.  
 Smith & Hemenway Co., 236 Broadway, New York.  
**Shears, Fruit and Flower Gathering**—  
 Columbia Grey Iron Casting Co., Columbia, Pa.  
**Shears, Garden**—  
 Smith & Hemenway Co., 236 Broadway, New York.  
 Wiebusch & Hilger, 9-15 Murray St., New York.  
**Shears, Glass**—  
 R. Heinisch's Sons Co., Newark, N. J.  
**Shears, Grape**—  
 Cronk & Carrier Mfg. Co., Elmira, N. Y.  
 Smith & Hemenway Co., 236 Broadway, New York.  
**Shears, Hydraulic**—  
 Henry Aiken, Pittsburgh, Pa.  
 Alliance Machine Co., Alliance, O.  
 Bertach & Co., Cambridge City, Ind.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Fischer Foundry & Machine Co., Pittsburgh, Pa.  
 A. Garrison Foundry Co., Pittsburgh, Pa.  
 Mesta Machine Co., Pittsburgh, Pa.  
 Morgan Construction Co., Worcester, Mass.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Watson-Stillman Co., 204-210 East 43d St., New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Shears, Lawn or Grass—**  
Geo. E. Gay, Augusta, Maine.

**Shears, Metal**

Adriance Machine Works, Brooklyn, N. Y.

Henry Aiken, Pittsburgh, Pa.

Alliance Machine Co., Alliance, O.

Beaudry & Co., Boston, Mass.

Bertsch & Co., Cambridge City, Ind.

Bethlehem Foundry & Machine Co., Bethlehem, Pa.

Bethlehem Steel Co., Bethlehem, Pa.

Ricknell Hardware Co., Janesville, Wis.

E. W. Bliss Co., Brooklyn, N. Y.

Buffalo Forge Co., Buffalo, N. Y.

Thomas Carlin's Sons Co., Allegheny, Pa.

Chandler & Farquhar, Boston, Mass.

Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Dubuque Machine Concern, Dubuque, Ia.

Chas. G. Eckstein, 249 Centre St., N. Y.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.

Farrel Fdy. & Mach. Co., Ansonia, Ct.

Fischer Foundry & Machine Co., Pittsburgh, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.

Gould & Eberhardt, Newark, N. J.

Heppenstall Forge & Knife Co., Pittsburgh, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.

George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.

R. E. Kidder, Worcester, Mass.

Chas. Lefrier & Co., Brooklyn, N. Y.

J. H. Lingle, Bellefonte, Pa.

Long & Allstatler Co., Hamilton, O.

McDougall & Potter Co., 602 W. 55th St., New York.

C. S. Mersick & Co., New Haven, Ct.

Mesta Machine Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.

National Fulton Brass Mfg. Co., Detroit, Mich.

National Machinery Co., Tiffin, O.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

George A. Ohl & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Henry Pels & Co., 66-68 Broad St., N. Y.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.

J. M. Robinson Mfg. Co., Cincinnati, O.

Rock River Machine Co., Janesville, Wis.

Royersford Foundry & Machine Co., Royersford, Pa.

Wm. Sellers & Co., Inc., Philadelphia.

George B. Sennett Co., Youngstown, O.

Smith & Edge Mfg. Co., Bridgeport, Ct.

Standard Machinery Co., Providence, R. I.

United Engineering & Foundry Co., Pittsburgh, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 204-210 East 43d St., New York.

Wickes Bros., Saginaw, Mich.

Williams, White & Co., Moline, Ill.

Wilmarth & Morman Co., Grand Rapids, Mich.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.

Baird Machinery Co., Pittsburgh, Pa.

Brown-Wales Co., Boston, Mass.

Carlin Machinery & Supply Co., Allegheny, Pa.

Barclay M. Everson, Pittsburgh, Pa.

Fairbanks Co., 416 Broome St., New York.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, 85 Liberty St., New York.

Jos. F. McCoy Co., 157 Chambers St., New York.

Merchant & Co., Inc., Philadelphia, Pa.

F. R. Phillips & Sons Co., Harrison Bldg., Philadelphia, Pa.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

L. F. Seyfert's Sons, 437-441 No. 3d St., Philadelphia, Pa.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

J. R. Vandeyck Co., 8 Dey St., New York.

**Shears, Mill—**

Smith & Hemenway Co., 296 Broadway, New York.

**Shears, Power Squaring—**

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

**Shears, Pruning—**

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John H. Graham & Co., 113 Chambers St., New York.

F. E. Kohler & Co., Canton, O.

National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.

New England Specialty Co., North Easton, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 296 Broadway, New York.

Wiebusch & Hilger, 9-15 Murray St., N. Y.

**Shears, Rotary—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Blake & Johnson, Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.

Detrick & Harvey Machine Co., Baltimore, Md.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.

Heppenstall Forge & Knife Co., Pittsburgh, Pa.

Hilles & Jones Co., Wilmington, Del.

Chas. Lefrier & Co., Brooklyn, N. Y.

National Cutlery Co., Philadelphia, Pa.

Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

George A. Ohl & Co., Newark, N. J.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Henry Pels & Co., 66 Broad St., N. Y.  
 Standard Machinery Co., Providence, R. I.  
 Watson-Stillman Co., 204-210 East 43d St., New York.  
**Shears, Rotary Circle Cutting—**  
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
 Niagara Machine & Tool Works, Buffalo, N. Y.  
 George A. Ohl & Co., Newark, N. J.  
 Waterbury Parrel Foundry & Machine Co., Waterbury, Ct.  
**Shears, Rubber and Leather—**  
 National Outlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.  
 Smith & Hemenway Co., 296 Broadway, New York.  
**Shears, Sardine—**  
 Dame, Stoddard & Co., Boston, Mass.  
**Shears, Sheep—**  
 Wiebusch & Hilger, 9-15 Murray St., New York.  
**Shears, Slitting—**  
 Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
 George A. Ohl & Co., Newark, N. J.  
 Rock River Machine Co., Janesville, Wis.  
**Shears, Tailors—**  
 R. Heinisch's Sons Co., Newark, N. J.  
 National Outlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.  
 Wiebusch & Hilger, 9-15 Murray St., New York.  
**Shear, Steel, Double—**  
 (See Steel, Double Shear.)  
**Shears, Wire—**  
 J. M. King & Co., Waterford, N. Y.  
**Sheathing, Copper—**  
 Hendricks Bros., 49 Cliff St., New York.  
 Merchant & Co., Inc., Philadelphia, Pa.  
**Sheathing Nails, &c., Yellow Metal—**  
 Randolph-Clowes Co., Waterbury, Ct.  
**Sheathing Paper—**  
 (See Paper, Sheathing.)  
**Sheaves, Ball Bearing—**  
 Johnston & Sharp Mfg. Co., Ottumwa, Ia.  
**Sheaves, Door—**  
 John O. Kupferle, St. Louis, Mo.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 I. S. Spencer's Sons, Chicopee Falls, Mass.  
 Stowell Mfg. & Foundry Co., South Milwaukee, Wis.  
 W. & J. Tiebout, 118 Chambers St., N. Y.  
 Wrightsville Hardware Co., Wrightsville, Pa.  
**Sheaves, Hoisting—**  
 Boston & Lockport Block Co., Boston, Mass.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Case Mfg. Co., Columbus, O.  
 Iobbe Foundry & Machine Co., Niagara Falls, N. Y.  
 A. Leschen & Sons Rope Co., St. Louis.

Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Pennsylvania Engineering Works, New Castle, Pa.  
 Wellman-Seaver-Morgan Co., Cleveland, O.  
**Sheaves, Power Transmission—**  
 C. O. Bartlett & Snow Co., Cleveland, O.  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
 Broderick & Bascom Rope Co., St. Louis.  
 H. W. Caldwell & Son, Western Ave. and 17th St., Chicago, Ill.  
 Thos. Carlin's Sons, Allegheny, Pa.  
 Case Mfg. Co., Columbus, O.  
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.  
 Dodge Mfg. Co., Mishawaka, Ind.  
 Fairbanks Co., 416 Broome St., New York.  
 L. & E. Greenwald Co., Cincinnati, O.  
 Jeffrey Mfg. Co., Columbus, O.  
 Jones & Laughlin Steel Co., Pittsburgh.  
 A. Leschen & Sons Rope Co., St. Louis.  
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
 Macomber & Whyte Rope Co., Chicago.  
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
 Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Pennsylvania Engineering Works, New Castle, Pa.  
 Poole Engineering & Machine Co., Baltimore, Md.  
 Wm. Sellers & Co., Inc., Philadelphia.  
 Soule Steam Feed Works, Meridian, Miss.  
 Trenton Iron Co., Trenton, N. J.  
**Sheaves, Sash—**  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
**Sheaves, Shutter—**  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
**Sheaves, Tackle Block—**  
 Boston & Lockport Block Co., Boston.  
 A. Leschen & Sons Rope Co., St. Louis.  
 Piqua Handle & Mfg. Co., Piqua, O.  
 W. & J. Tiebout, 118 Chambers St., N. Y.  
 Union Hardware Co., Torrington, Ct.  
**Sheaves, Wood Split—**  
 Dodge Mfg. Co., Mishawaka, Ind.  
 Saginaw Mfg. Co., Saginaw, Mich.  
**Sheep Bells, Shears—**  
 (See Bells, Shears.)  
**Sheep Shearing Machine—**  
 American Shearer Mfg. Co., Nashua, N. H.  
 Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.  
 Sigourney Tool Co., Hartford, Ct.  
**Sheet and Roll Brass—**  
 (See Brass, Roll and Sheet.)  
**Sheet and Roll Bronze—**  
 (See Bronze, Roll & Sheet.)  
**Sheet Bars—**  
 (See Bars, Sheet and Tin Plate.)  
**Sheet Copper—**  
 (See Copper, Roll and Sheet.)

**Sheet Corrugating Machinery—**  
Canton Foundry & Machine Co., Canton, O.  
J. M. Robinson Mfg. Co., Cincinnati, O.  
**Sheet Guides—**  
(See Guides, Sheet and Rope.)  
**Sheet Iron, Cold Rolled—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Garry Iron & Steel Co., Cleveland, O.  
Goff, Horner & Co., Ltd., Pittsburgh, Pa.  
Republic Iron & Steel Co., Chicago, Ill.  
Youngstown Iron Sheet & Tube Co., Youngstown, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
Arthur C. Harvey Co., Boston, Mass.  
Merchant & Co., Inc., Philadelphia, Pa.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.  
Waite, Ranlet & Co., Boston, Mass.  
**Sheet Iron Door Caps—**  
(See Caps, Door and Window, Metal.)  
**Sheet Iron Finials—**  
(See Finials and Vanes, Metal.)  
**Sheet Iron, Planished—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
Merchant & Co., Inc., Philadelphia, Pa.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
Waite, Ranlet & Co., Boston, Mass.  
**Sheet Iron Ware—**  
(See Ware, Sheet Iron.)  
**Sheet Iron Work—**  
American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

**Sheet Lead—**  
E. Phillips & Sons, So. Hanover, Mass.  
**Sheet Metal, Blanked and Formed—**  
(See Stamping, Sheet Metal.)  
**Sheet Metal Dies, Gauges—**  
(See Dies, Gauges.)

**Sheet Metal Goods, to Order—**

W. J. Clark Co., Salem, O.  
Crosby Co., Buffalo, N. Y.  
Feeders Mfg. Works, Buffalo, N. Y.  
Globe Machine & Stamping Co., Cleveland, O.  
Goodwin & Kintz Co., Winsted, Ct.  
Janney Steinmetz & Co., 741 Draxel Bldg., Philadelphia, Pa.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
Ira B. Smith, Bristol, Ct.  
**Sheet Metal Work—**  
Avery Stamping Co., Cleveland, O.  
W. J. Clark Co., Salem, O.  
Drouve Co., Bridgeport, Ct.  
Globe Machine Stamping Co., Cleveland, O.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
Ira B. Smith, Bristol, Ct.  
Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

Robert Wetherill & Co., Chester, Pa.

**Sheet Metal Work, Seamless Steel—**

Uehling-Decker Co., Passaic, N. J.

**Sheet Mill Doublers—**  
(See Doublers, Sheet Mill.)

**Sheet Rubber, Vulcanized—**  
Whitman & Barnes Mfg. Co., Akron, O.

**Sheets, Aluminum—**  
Pittsburgh Reduction Co., Pittsburgh, Pa.

Scovill Mfg. Co., Waterbury, Ct.

**Sheets, Bicycle Tube—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

**Sheets, Brass—**  
(See Brass, Roll and Sheet.)

**Sheets, Corrugating Machinery—**

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

**Sheets, Curved Corrugated—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

**Sheets, Double Refined Puddled Iron—**  
Garry Iron & Steel Co., Cleveland, O.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

**Sheets, Electrical**  
Allegheny Steel & Iron Co., Pittsburgh.

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**Sheets, Enameling Steel—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

**Sheets, Galvanized—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.

McCullough Iron Co., Wilmington, Del.

Republic Iron & Steel Co., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Zug & Co., Ltd., Pittsburgh, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Bourne-Fuller Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

Garry Iron & Steel Co., Cleveland, O.

Walter Graham, Harrison Bldg., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Merchant & Co., Inc., Philadelphia, Pa.



John B. Newkirk & Co., Harrison Bldg., Philadelphia, Pa.

Pierson & Co., 23 Broadway, New York.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.  
Wm. H. Wallace & Co., 66 Broadway, N. Y.

**Sheets, Iron and Steel—**  
Allegheny Iron & Steel Co., Pittsburgh, Pa.

American Sheet & Tin Plate Co., Pittsburgh, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Henry Disston & Sons, Philadelphia, Pa.  
Garry Iron & Steel Co., Cleveland, O.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.  
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

William Jessop & Son, 91 John St., N. Y.  
McCullough Iron Co., Wilmington, Del.

Republic Iron & Steel Co., Chicago, Ill.  
Abel Rollason & Sons, Birmingham, England.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
S. & O. Wardlow, 95 John St., N. Y.

Alan Wood Iron & Steel Co., 515 Arch St., Philadelphia, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.  
Youngtown Iron Sheet & Tube Co., Youngstown, O.

Youngtown Iron & Steel Roofing Co., Youngstown, O.

Zug & Co., Ltd., Pittsburgh, Pa.

#### MERCHANTS.

Bassett-Presley Co., Cleveland, O.  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.

Justice Cox, Jr., & Co., Bullitt Bldg., Philadelphia, Pa.

Denman & Davis, 85 and 87 John St., N. Y.

J. H. Hillman & Son, Pittsburgh, Pa.  
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

Merchant & Co., Inc., Philadelphia, Pa.  
Pierson & Co., 23 Broadway, New York.

Horace T. Potts & Co., 314-320 No. 3d St., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Charles G. Stevens Co., 58-60 So. Canal St., Chicago, Ill.

Wm. H. Wallace & Co., 66 Broadway, New York.

Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Sheets, Locomotive Jacket Steel—**

J. Wood & Bros. Co., Conshohocken, Pa.

**Sheets, Milk Can Body—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

**Sheets, Nickel—**  
Hermann Boker & Co., 101-103 Duane St., New York.

**Sheets, Nickellized—**  
American Nickeloid & Mfg. Co., Peru, Ill.

**Sheets, Open Hearth, Steel—**  
Goff-Horner & Co., Ltd., Pittsburgh, Pa.

**Sheets, Phosphor Bronze—**  
Phosphor-Bronze Smelting Co., Ltd., 22 Washington Ave., Philadelphia, Pa.

Paul S. Reeve & Son, Philadelphia, Pa.

**Sheets, Polished Steel—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**Sheets, Range—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**Sheets, Roofing—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Garry Iron & Steel Co., Cleveland, O.  
Goff, Horner & Co., Ltd., Pittsburgh, Pa.

McCullough Iron Co., Wilmington, Del.  
Alan Wood Iron & Steel Co., 515 Arch St., Philadelphia, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**Sheets, Steel, for Electric Flating—**

Allegheny Steel & Iron Co., Pittsburgh, Pa.

**Sheets, Steel Stamping—**  
Allegheny Steel & Iron Co., Pittsburgh, Pa.

**Sheets, Stove Body—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**Sheet Steel, Cold Rolled—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Henry Disston & Sons, Philadelphia, Pa.  
Elliott-Blair Steel Co., New Castle, Pa.

Federal Mfg. Co., Cleveland, O.  
Garry Iron & Steel Co., Cleveland, Pa.

Goff, Horner & Co., Ltd., Pittsburgh, Pa.  
Wm. Jessop & Son, 91 John St., N. Y.

Abel Rollason & Sons, Birmingham, England.

S. & O. Wardlow, 95 John St., N. Y.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

#### MERCHANTS.

Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.  
Denman & Davis, 85 and 87 John St., New York.

J. H. Hillman & Son, Pittsburgh, Pa.  
Jos. F. McCoy Co., 157 Chambers St., New York.

Merchant & Co., Inc., Philadelphia, Pa.  
Patriarche & Bell, 25 Pearl St., N. Y.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.

**Sheet Steel, Covered with Nickel—**  
Hermann Boker & Co., 101-103 Duane St., New York.

**Sheet Steel, Hot Rolled—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Henry Diaston & Sons, Philadelphia, Pa.  
Garry Iron & Steel Co., Cleveland, O.  
Hobson, Houghton & Co., Ltd., 38 John St., New York.  
Wm. Jessop & Sons, 91 John St., N. Y.  
Abel Rollason & Sons, Birmingham, England.  
S. & C. Wardlow, 95 John St., N. Y.  
Youngtown Iron Sheet & Tube Co., Youngtown, O.  
Youngtown Iron & Steel Roofing Co., Youngtown, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
Hermann Boker & Co., 101-103 Duane St., New York.

Merchant & Co., Inc., Philadelphia, Pa.  
Patriarche & Bell, 215 Pearl St., N. Y.  
F. R. Phillip's Sons Co., Philadelphia.  
Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.  
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

**Sheets, Tinned Dairy—**  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

**Sheet Zinc, Nickelized—**  
American Nickeloid & Mfg. Co., Peru, Ill.

**Shelf Boxes, Brackets, Pins—**  
(See Boxes, Brackets, Pins.)

**Shellers, Corn—**  
C. O. Bartlett & Snow Co., Cleveland, O.  
A. Buch's Sons Co., Elizabethtown, Pa.  
Root Bros. Co., Plymouth, O.  
Stover Mfg. Co., Freeport, Ill.  
R. W. Whitehurst & Co., Norfolk, Va.

**Shells, Automobile and Marine Boiler—**  
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

**Shells, Automobile Spark Plug**

Atlantic Machine Screw Co., Boston, Mass.

**Shells, Brass, Seamless—**

Randolph-Clowes Co., Waterbury, Ct.

**Shells, Brass, Shot—**

Union Metallic Cartridge Co., Bridgeport, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Shells, Copper, Seamless—**

Randolph-Clowes Co., Waterbury, Ct.

Wallace Supply Co., 169 Jackson Boulevard, Chicago, Ill.

**Shells, Paper, Loaded—**

Peters Cartridge Co., Cincinnati, O.

Tower & Lyon Co., 95 Chambers St., New York.

Union Metallic Cartridge Co., Bridgeport, Ct.

**Shells, Paper Shot—**

Peters Cartridge Co., Cincinnati, O.

Union Metallic Cartridge Co., Bridgeport, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Shells, Rifled Bullet—**  
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Shells, Rock Crusher—**  
Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.

**Shells, Roll—**  
Chrome Steel Works, Brooklyn, N. Y.  
Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.

**Shells, Seamless Drawn Steel, for Ordnance—**

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Pressed Steel Tank Co., Milwaukee, Wis.

**Shelves, Detachable—**

Atlas Mfg. Co., New Haven, Ct.

**Shelves, Steel Library—**

Clason Architectural Metal Co., Providence, R. I.

**Shelves, Stove Pipe—**

Adams Co., Dubuque, Iowa.

(See also Household Articles.)

**Shelves, Stove Pipe, Wire—**

(See Household Articles, Wire.)

**Shelving, Hardware Store—**

J. D. Warren Mfg. Co., Chicago, Ill.

**Shepherds' Crooks—**

(See Crooks, Shepherds'.)

**Shifters, Belt—**

(See Belt Shifters.)

**Shims—**

(See Wedges and Shims.)

**Shingle and Heading Machines—**

(See Heading and Shingle Machines.)

**Shingles, Metallic—**

Berger Mfg. Co., Canton, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Garry Iron & Steel Co., Cleveland, O.

Merchant & Co., Inc., Philadelphia, Pa.

National Sheet Metal Roofing Co., Jersey City, N. J.

**Shingling Hatchets—**

(See Hatchets, Shingling, Half, &c.)

**Ship Anchors, Pumps—**

(See Anchors, Pumps.)

**Shipbuilders—**

American Bridge Co., 100 Broadway, N. Y.

Wm. Cramp & Sons' Ship & Engine Building Co., Philadelphia, Pa.

Newport News Shipbuilding & Dry Dock Co., Newport News, Va.

**Ship Carpenters' Tools—**

(See Tools, Ship Carpenters'.)

**Ship Chandlery Hardware—**

Boston & Lockport Block Co., Boston.

Edson Mfg. Co., Boston, Mass.

W. & J. Tiebout, 118 Chambers St., New York.

**Ship Locks and Latches—**

(See Locks and Latches.)

**Shipyard Machinery—**

Bertsch & Co., Cambridge City, Ind.

Brown Hoisting Machinery Co., Inc., Cleveland, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.



**Shovels, Railroad Tamp-**  
**ing—**

Avery Stamping Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.

**Shovels, Sewer—**

Avery Stamping Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.

**Shovels, Snow—**

Avery Stamping Co., Cleveland, O.  
F. E. Kohler & Co., Canton, O.  
A. J. Phillips Co., Fenton, Mich.

**Shovels, Special, to Order—**

Avery Stamping Co., Cleveland, O.

**Shovels, Steam—**

C. W. Hunt Co., West New Brighton, N. Y.

**Shovels, Stove—**

W. J. Clark Co., Salem, O.  
New York Stamping Co., Brooklyn, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Sidney Shepard & Co., Buffalo, N. Y.

Stover Mfg. Co., Freeport, Ill.

**Shovels, Tongs, Pokers, Fire Sets, &c.—**

Fanner Mfg. Co., Cleveland, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Stover Mfg. Co., Freeport, Ill.

**Shovels, Tunnel—**

Avery Stamping Co., Cleveland, O.

**Shovels, Wood—**

John Sommer's Son, Newark, N. J.

**Showcase Catches, Sup-**  
**ports—**

(See Catches, Supports.)

**Shredders, Dry Fodder—**

Silver Mfg. Co., Salem, O.

**Shredders, Vegetable—**

Henry Disston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.

**Shrinkers, Tire—**

Boynton & Plummer, Worcester, Mass.  
Champion Blower & Forge Co., Lancaster, Pa.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Shuts, Cold—**

James McKay & Co., Pittsburgh, Pa.  
Morley Bros., Saginaw, Mich.

Standard Chain Co., Pittsburgh, Pa.

**Shutter Bars, Bolts, &c.—**

(See Bars, Bolts, &c.)

**Shutters, Iron and Steel—**

(See Doors and Shutters, Iron and Steel.)

**Shutter Workers—**

(See Workers, Shutter.)

**Sickles—**

(See Hooks, Grass.)

**Sickles, Harvester—**

Whitman & Barnes Mfg. Co., Akron, O.

**Side Pulleys—**

(See Pulleys, Side.)

**Sidewalk Cleaners, Hoists—**

(See Cleaners, Hoists.)

**Sidewalk Foundations—**

Youngtown Iron & Steel Roofing Co., Youngstown, O.

**Siding, Iron and Steel—**

(See Ceiling and Siding, Iron and Steel.)

**Sieves—**  
(See Riddles and Sieves.)

**Sieves, Ash—**

Ludlow-Saylor Wire Co., St. Louis, Mo.  
Wickwire Bros., Cortland, N. Y.

**Sieves, Flour—**

Estey Wire Works Co., 59 Fulton St., N. Y.

Gilbert & Bennett Mfg. Co., 27 Broadway, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.

Parker Wire Goods Co., Worcester, Mass.  
Sidney Shepard & Co., Buffalo, N. Y.

Western Wire Goods Co., Buffalo, N. Y.  
Wickwire Bros., Cortland, N. Y.

**Sifters, Ash—**

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Hill Dryer Co., Worcester, Mass.  
W. S. Tyler Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

**Sifters, Flour—**

J. L. Clark Hardware Co., Rockford, Ill.  
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Fred J. Meyers Mfg. Co., Hamilton, O.  
Sidney Shepard & Co., Buffalo, N. Y.

Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Sifters, Sand—**

Barbour-Stockwell Co., Cambridgeport, Mass.

Bryant & Co., Inc., Detroit, Mich.  
Gould & Eberhardt, Newark, N. J.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Ludlow-Saylor Wire Co., St. Louis, Mo.  
Charles Mundt & Sons, 441-447 Pearl St., New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.  
J. W. Paxson Co., Philadelphia, Pa.

Henry Perkins Co., Bridgewater, Mass.  
Whiting Foundry Equipment Co., Harvey, Ill.

**Sifting Machines, Hand and Power—**

Estey Wire Works Co., 59 Fulton St., N. Y.

**Sights, Gun, Rifle, &c.—**

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Signal Bells, Cord, Lamps—**

(See Bells, Cord, Lamps.)

**Signaling Apparatus, Electric—**

General Electric Co., Schenectady, N. Y.

**Signals, Railroad—**

Allentown Rolling Mills, Allentown, Pa.

**Sign Letters—**

(See Letters, Cast Iron Sign.)

**Sign or Engravers' Brass—**

(See Brass, Sign or Engravers.)

**Signs, Enameled Iron—**

A. V. Taylor & Co., Cincinnati, O.

**Signs, Enameled Steel—**

Metal Stamping Co., Niagara Falls, N. Y.

A. V. Taylor & Co., Cincinnati, O.

**Signs, Sheet Metal—**

Glen Mfg. Co., Ellwood City, Pa.

Metal Stamping Co., Niagara Falls, N. Y.

**Signs, Venetian Iron—**

A. V. Taylor & Co., Cincinnati, O.

**Signs, Wire, &c.—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

Glen Mfg. Co., Ellwood City, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.

**Silicon, Carbide of—**  
Carborundum Co., Niagara Falls, N. Y.

**Silico-Spiegel—**

Geo. G. Blackwell, Sons & Co., Liver-  
pool, England.  
C. W. Leavitt & Co., 15 Cortlandt St.,  
New York.

**MERCHANTS.**

Frank Samuel, Harrison Bldg., Philadel-  
phia, Pa.

**Sills and Lintels, Building—**  
(See Structural Material.)

**Silon, Pine and Cypress—**  
W. E. Caldwell Co., Louisville, Ky.

**Silver—**

Baker & Co., Newark, N. J.

**Silver, German—**

(See German Silver.)

**Silver Metal for Galvaniz-  
ing Flux—**

Empire Metal Co., Syracuse, N. Y.

**Silver Liquid Paints—**

(See Paints, Gold.)

**Silver Plated Brushes—**

(See Brushes, Silver Plated.)

**Silver Solder, Tubing—**

(See Solder, Tubing.)

**Sink Bolts, Cleaners, Strain-  
ers—**

(See Bolts, Cleaners, Strainers.)

**Sinks, Cast—**

Barnes Mfg. Co., Mansfield, O.  
Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.

Blacklock Foundry, So. Pittsburgh, Tenn.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

B. F. Sturtevant Co., Boston, Mass.

**Sinks, Enameled—**

Barnes Mfg. Co., Mansfield, O.

**Sinks, Wrought Steel—**

Kilbourne & Jacobs Mfg. Co. Columbus, O.

**Siphons—**

Crosby Steam Gage & Valve Co., Boston.

Eymon-Evans Mfg. Co., 1507 Clearfield  
St., Philadelphia, Pa.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

E. W. Vandusen Co., Cincinnati, O.

**Skates, Ice—**

Barney & Berry, Springfield, Mass.

Crosby Co., Buffalo, N. Y.

John H. Graham & Co., 113 Chambers  
St., New York.

Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Wor-  
cester, Mass.

**Skates, Roller—**

Barney & Berry, Springfield, Mass.

Richard Mfg. Co., Bloomsburg, Pa.

Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Wor-  
cester, Mass.

**Skeins, Thimble and Boxes—**

A. C. Williams, Ravenna, O.

**Skelp, Iron and Steel—**

American Steel Hoop Co., Pittsburgh.  
Harrisburg Pipe & Pipe Bending Co.,  
Harrisburg, Pa.

C. B. Houston & Co., Girard Bldg.,  
Philadelphia, Pa.

La Belle Iron Works, Steubenville, O.

Seidel & Hastings Co., Wilmington, Del.

Youngstown Iron Sheet & Tube Co.,  
Youngstown, O.

**MERCHANTS.**

Bourne-Fuller Co., Cleveland, O.

Cabene & Co., Real Estate Trust Bldg.,  
Philadelphia, Pa.

Joseph T. Eyerson & Son, 13-22 Milwau-  
kee Ave., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St.,  
Chicago, Ill.

**Skewers, Steel, Butcher—**

Parker Wire Goods Co., Worcester, Mass.

**Skids—**

Borden & Selleck Co., 48 Lake St., Chi-  
cago, Ill.

Boston & Lockport Block Co., Boston.

Fairbanks Co., 416 Broome St., N. Y.

Kilbourne & Jacobs Mfg. Co. Columbus, O.

**Skillets, Copper—**

(See Ware, Copper.)

**Skillets, Steel—**

(See Ware, Hollow Steel.)

**Skimmers—**

(See Kitchen Articles, Wire.)

**Skimmers and Stirrers, Cru-  
cible—**

McCullough-Dalzell Crucible Co., Pitts-  
burgh, Pa.

**Skylights—**

E. B. Badger & Sons Co., Boston, Mass.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Chattanooga Roofing & Foundry Co.,  
Chattanooga, Tenn.

Clason Architectural Metal Co., Provi-  
dence, R. I.

G. Drouve Co., Bridgeport, Ct.

Edwards Mfg. Co., Cincinnati, O.

National Sheet Metal Roofing Co., Jersey  
City, N. J.

**Slabbers, Log—**

Humphrey Machine Co., Keene, N. H.

**Slashers, Steam Exhausting  
Apparatus for—**

B. F. Sturtevant Co., Boston, Mass.

**Slaters' Tools—**

(See Tools, Slaters'.)

**Slating, Blackboard—**

(See Paint, Blackboard.)

**Slats, Louver—**

Youngstown Iron & Steel Roofing Co.,  
Youngstown, O.

**Slaw Cutters—**

(See Cutters, Slaw.)

**Sledges and Hammers—**

American Brake Shoe & Foundry Co.,  
Mahwah, N. J.

Heller Bros. Co., Newark, N. J.

**Sleeves, Ball Bearing Loose  
Pulley—**

Pressed Steel Mfg. Co., Ridge Ave. and  
Willow St., Philadelphia, Pa.

**Sleeves, Plumbago—**

McCullough-Dalzell Crucible Co., Pitts-  
burgh, Pa.

**Sleeves, Taper Drill—**

Keystons Mfg. Co., Buffalo, N. Y.

- Sleigh Bells, Shoes—**  
(See Bells, Shoes.)
- Sleigh Bell Straps—**  
(See Straps, Sleigh Bell.)
- Sleigh Shoe Bolts—**  
(See Bolts, Sleigh Shoe.)
- Slicers, Beef—**  
(See Cutters, Smoked Beef.)
- Slicers, Bread—**  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.
- Slicers, Vegetable and Fruit—**  
E. A. Atkins & Co., Indianapolis, Ind.  
Henry Diston & Sons, Philadelphia, Pa.  
Enterprise Mfg. Co., Philadelphia, Pa.  
C. E. Jennings Co., 42 Murray St., N. Y.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.
- Slicks, Carpenters'—**  
Buck Bros., Millbury, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- L. & I. J. White Co., Buffalo, N. Y.**
- Slide Rests—**  
(See Rests, Slide.)
- Slides, Desk—**  
Stanley Works, New Britain, Ct.
- Slides, Hame Strap—**  
Fanner Mfg. Co., Cleveland, O.
- Slides, Rope—**  
(See Clamps and Slides, Rope.)
- Sling Chains—**  
(See Chains, Sling.)
- Slings, Hay—**  
(See Haying Tools.)
- Slitting Machines—**  
(See also Shears, Slitting.)  
American Tube & Stamping Co., Bridgeport, Ct.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Kimball Bros. & Sprague, Brockton, Mass.  
Chas. Leflier & Co., Brooklyn, N. Y.  
Long & Allstatter Co., Hamilton, O.  
Niagara Machine & Tool Works, Buffalo, New York.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
George A. Ohl & Co., Newark, N. J.  
Henry Perkins Co., Bridgewater, Mass.  
Standard Machinery Co., Providence, R. I.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.
- Slitting Machines, Gang—**  
Waterbury Machine Co., Waterbury, Ct.
- Slitting Saws—**  
(See Saws, Slitting.)
- Slotted Head Bolts—**  
(See Bolts, Special.)
- Slotters, Bench, Screw—**  
Grant Mfg. & Machine Co., Bridgeport, Ct.
- Slottling and Slabbing Machines, Bicycle Nipple—**  
Garvin Machine Co., Spring & Varick Sts., New York.
- E. J. Manville Mach. Co., Waterbury, Ct.**
- Slotting Attachments for Milling Machines—**  
Brown & Sharpe Mfg. Co., Providence, R. I.
- Slotting Machines—**  
Baker Bros., Toledo, O.  
Blake & Johnson, Waterbury, Ct.  
Garvin Machine Co., Spring & Varick Sts., New York.  
New Haven Mfg. Co., New Haven, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Wm. Sellers & Co., Inc., Philadelphia.
- Slotting Machines, Locomotive Frame—**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.
- Slotting Machines, Screw Head—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Garvin Machine Co., Spring & Varick Sts., New York.  
Harvey Hubbell, Bridgeport, Ct.  
E. J. Manville Machine Co., Waterbury, Ct.
- Pratt & Whitney Co., Hartford, Ct.**
- Dwight Slate Machine Co., Hartford, Ct.**
- Slotting Screws, to Order—**  
Henry Diston & Sons, Philadelphia, Pa.
- Slotting Tools—**  
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.
- Smokers' Sets, Aluminum—**  
Scovill Mfg. Co., Waterbury, Ct.
- Smokestacks—**  
(See Chimneys, Steel.)
- Snap Gauges, Gauge Blanks—**  
(See Gauges, Blanks.)
- Snap and Swivels, Halter, Harness, &c.—**  
Covert Mfg. Co., West Troy, N. Y.  
Metal Stamping Co., Niagara Falls, N. Y.  
Onelda Community, Kenwood, N. Y.
- Snaps, Halter, Harness, &c.**  
Billings & Spencer Co., Hartford, Ct.  
Bridgeport Chain Co., Bridgeport, Ct.  
Covert Mfg. Co., West Troy, N. Y.  
Covert's Saddlery Works, Farmer, N. Y.  
H. C. Jenkinson & Co., Newark, N. J.  
North & Judd Mfg. Co., New Britain, Ct.  
Onelda Community, Ltd., Kenwood, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.
- Snaps, Safety Lock, Wire—**  
Wire Goods Co., Worcester, Mass.
- Snatch Blocks—**  
(See Blocks, Deck and Snatch.)
- Snaths—**  
American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Fort Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson, Mich.
- Sniffling Valves—**  
(See Valves, Sniffling.)
- Snips, Cotton Bale—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Snips, Tinnerns'—**  
(See Shears and Snips, Tinnerns'.)
- Snow Shovels—**  
(See Shovels, Snow.)

**Signs, Wire, &c.—**

Buffalo Wire Works Co., Buffalo, N. Y.  
Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

Glen Mfg. Co., Ellwood City, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.

**Silicon, Carbide of—**  
Carborundum Co., Niagara Falls, N. Y.

**Silico-Spiegel—**

Geo. G. Blackwell, Sons & Co., Liver-  
pool, England.  
C. W. Leavitt & Co., 15 Cortlandt St.,  
New York.

**MERCHANTS.**

Frank Samuel, Harrison Bldg., Philadel-  
phia, Pa.

**Sills and Lintels, Building—**

(See Structural Material.)

**Silos, Pine and Cypress—**  
W. E. Caldwell Co., Louisville, Ky.

**Silver—**

Baker & Co., Newark, N. J.

**Silver, German—**

(See German Silver.)

**Silver Metal for Galvaniz-  
ing Flux—**

Empire Metal Co., Syracuse, N. Y.

**Silver Liquid Paints—**

(See Paints, Gold.)

**Silver Plated Brushes—**

(See Brushes, Silver Plated.)

**Silver Solder, Tubing—**

(See Solder, Tubing.)

**Sink Bolts, Cleaners, Strain-  
ers—**

(See Bolts, Cleaners, Strainers.)

**Sinks, Cast—**

Barnes Mfg. Co., Mansfield, O.  
Bethlehem Foundry & Machine Co., So.  
Bethlehem, Pa.

Blacklock Foundry, So. Pittsburgh, Tenn.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphreys Mfg. Co., Mansfield, O.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

B. F. Sturtevant Co., Boston, Mass.

Barnes Mfg. Co., Mansfield, O.

**Sinks, Wrought Steel—**

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Siphons—**

Crosby Steam Gage & Valve Co., Boston.

Eynon-Evans Mfg. Co., 1507 Clearfield

St., Philadelphia, Pa.

Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

E. W. Vanduzen Co., Cincinnati, O.

**Skates, Ice—**

Barney & Berry, Springfield, Mass.

Crosby Co., Buffalo, N. Y.

John H. Graham & Co., 113 Chambers

St., New York.

Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Wor-  
cester, Mass.

**Skates, Roller—**

Barney & Berry, Springfield, Mass.

Richard Mfg. Co., Bloomsburg, Pa.

Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Wor-  
cester, Mass.

**Skins, Thimble and Boxes—**

A. C. Williams, Ravenna, O.

**Skelp, Iron and Steel—**

American Steel Hoop Co., Pittsburgh.  
Harrisburg Pipe & Pipe Bending Co.,  
Harrisburg, Pa.

C. B. Houston & Co., Girard Bldg.,  
Philadelphia, Pa.

La Belle Iron Works, Steubenville, O.

Seidel & Hastings Co., Wilmington, Del.

Youngstown Iron Sheet & Tube Co.,  
Youngstown, O.

**MERCHANTS.**

Bourne-Fuller Co., Cleveland, O.

Cabeen & Co., Real Estate Trust Bldg.,  
Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwau-  
kee Ave., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St.,  
Chicago, Ill.

**Skewers, Steel, Butcher—**

Parker Wire Goods Co., Worcester, Mass.

**Skids—**

Borden & Belleck Co., 48 Lake St., Chi-  
cago, Ill.

Boston & Lockport Block Co., Boston.

Fairbanks Co., 416 Broome St., N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Skillets, Copper—**

(See Ware, Copper.)

**Skillets, Steel—**

(See Ware, Hollow Steel.)

**Skimmers—**

(See Kitchen Articles, Wire.)

**Skimmers and Stirrers, Cru-  
cible—**

McCullough-Dalzell Crucible Co., Pitts-  
burgh, Pa.

**Skylights—**

E. B. Badger & Sons Co., Boston, Mass.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Chattanooga Roofing & Foundry Co.,  
Chattanooga, Tenn.

Clason Architectural Metal Co., Provi-  
dence, R. I.

G. Drouve Co., Bridgeport, Ct.

Edwards Mfg. Co., Cincinnati, O.

National Sheet Metal Roofing Co., Jersey  
City, N. J.

**Slabbers, Log—**

Humphrey Machine Co., Keene, N. H.

**Slashers, Steam Exhausting****Apparatus for—**

B. F. Sturtevant Co., Boston, Mass.

**Slaters' Tools—**

(See Tools, Slaters')

**Slating, Blackboard—**

(See Paint, Blackboard.)

**Slats, Louver—**

Youngstown Iron & Steel Roofing Co.,  
Youngstown, O.

**Slaw Cutters—**

(See Cutters, Slaw.)

**Sledges and Hammers—**

American Brake Shoe & Foundry Co.,  
Mahwah, N. J.

Heller Bros. Co., Newark, N. J.

**Sleeves, Ball Bearing Loose****Pulley—**

Pressed Steel Mfg. Co., Ridge Ave. and  
Willow St., Philadelphia, Pa.

**Sleeves, Plumbago—**

McCullough-Dalzell Crucible Co., Pitts-  
burgh, Pa.

**Sleeves, Taper Drill—**

Keystone Mfg. Co., Buffalo, N. Y.

**Sleigh Bells, Shoes—**  
(See Bells, Shoes.)  
**Sleigh Bell Straps—**  
(See Straps, Sleigh Bell.)  
**Sleigh Shoe Bolts—**  
(See Bolts, Sleigh Shoe.)  
**Slicers, Beef—**  
(See Cutters, Smoked Beef.)  
**Slicers, Bread—**  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.  
**Slicers, Vegetable and Fruit—**  
E. A. Atkins & Co., Indianapolis, Ind.  
Henry Diaston & Sons, Philadelphia, Pa.  
Enterprise Mfg. Co., Philadelphia, Pa.  
C. E. Jennings Co., 42 Murray St., N. Y.  
Parker Wire Goods Co., Worcester, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Tucker & Dorsey Mfg. Co., Indianapolis, Ind.  
**Slicks, Carpenters'—**  
Buck Bros., Millbury, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
L. & I. J. White Co., Buffalo, N. Y.  
**Slide Rests—**  
(See Rests, Slide.)  
**Slides, Desk—**  
Stanley Works, New Britain, Ct.  
**Slides, Hame Strap—**  
Fanner Mfg. Co., Cleveland, O.  
**Slides, Rope—**  
(See Clamps and Slides, Rope.)  
**Sling Chains—**  
(See Chains, Sling.)  
**Slings, Hay—**  
(See Haying Tools.)  
**Slitting Machines—**  
(See also Shears, Slitting.)  
American Tube & Stamping Co., Bridgeport, Ct.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Kimball Bros. & Sprague, Brockton, Mass.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Long & Alistatter Co., Hamilton, O.  
Niagara Machine & Tool Works, Buffalo, New York.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
George A. Ohl & Co., Newark, N. J.  
Henry Perkins Co., Bridgewater, Mass.  
Standard Machinery Co., Providence, R. I.  
Waterbury Farrell Foundry & Machine Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.  
**Slitting Machines, Gang—**  
Waterbury Machine Co., Waterbury, Ct.  
**Slitting Saws—**  
(See Saws, Slitting.)  
**Slotted Head Bolts—**  
(See Bolts, Special.)  
**Slotters, Bench, Screw—**  
Grant Mfg. & Machine Co., Bridgeport, Ct.  
**Slotting and Slabbing Machines, Bicycle Nipple—**  
Garvin Machine Co., Spring & Varick Sts., New York.  
E. J. Manville Mach. Co., Waterbury, Ct.

**Slotting Attachments for Milling Machines—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
**Slotting Machines—**  
Baker Bros., Toledo, O.  
Blake & Johnson, Waterbury, Ct.  
Garvin Machine Co., Spring & Varick Sts., New York.  
New Haven Mfg. Co., New Haven, Ct.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
Wm. Sellers & Co., Inc., Philadelphia.  
**Slotting Machines, Locomotive Frame—**  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.  
**Slotting Machines, Screw Head—**  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Garvin Machine Co., Spring & Varick Sts., New York.  
Harvey Hubbell, Bridgeport, Ct.  
E. J. Manville Machine Co., Waterbury, Ct.  
Pratt & Whitney Co., Hartford, Ct.  
Dwight Slate Machine Co., Hartford, Ct.  
**Slotting Screws, to Order—**  
Henry Diaston & Sons, Philadelphia, Pa.  
**Slotting Tools—**  
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.  
**Smokers' Sets, Aluminum—**  
Scovill Mfg. Co., Waterbury, Ct.  
**Smokestacks—**  
(See Chimneys, Steel.)  
**Snap Gauges, Gauge Blanks—**  
(See Gauges, Blanks.)  
**Snaps and Swivels, Halter, Harness, &c.—**  
Covert Mfg. Co., West Troy, N. Y.  
Metal Stamping Co., Niagara Falls, N. Y.  
Onelda Community, Kenwood, N. Y.  
**Snaps, Halter, Harness, &c.—**  
Billings & Spencer Co., Hartford, Ct.  
Bridgeport Chain Co., Bridgeport, Ct.  
Covert Mfg. Co., West Troy, N. Y.  
Covert's Saddlery Works, Farmer, N. Y.  
R. C. Jenkinson & Co., Newark, N. J.  
North & Judd Mfg. Co., New Britain, Ct.  
Onelda Community, Ltd., Kenwood, N. Y.  
Sargent & Co., 151 Leonard St., N. Y.  
**Snaps, Safety Lock, Wire—**  
Wire Goods Co., Worcester, Mass.  
**Snatch Blocks—**  
(See Blocks, Deck and Snatch.)  
**Snaths—**  
American Fork & Hoe Co., Cleveland, O.  
Iowa Farming Tool Co., Fort Madison, Ia.  
Withington & Cooley Mfg. Co., Jackson, Mich.  
**Sniffing Valves—**  
(See Valves, Sniffing.)  
**Snips, Cotton Bale—**  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
**Snips, Tinners'—**  
(See Shears and Snips, Tinners'.)  
**Snow Shovels—**  
(See Shovels, Snow.)



- Soap Dishes, Trays—**  
(See Dishes, Trays.)
- Soap, Floured Toilet—**  
Taplin Mfg. Co., New Britain, Ct.
- Soapstone Griddles—**  
(See Griddles, Soapstone.)
- Socket Bolts, Hooks, Wrenches—**  
(See Bolts, Hooks, Wrenches.)
- Socket Bushings and Hooks, Electric—**  
(See Electric Light Fittings.)
- Sockets, Drill—**  
Billings & Spencer Co., Hartford, Ct.  
Cincinnati Screw & Tap Co., Cincinnati, O.  
Cleveland Twist Drill Co., Cleveland, O.  
Etna Mfg. Co., 253 Broadway, New York.  
Keystone Mfg. Co., Buffalo, N. Y.  
Morse Twist Drill & Machine Co., New Bedford, Mass.  
Oneida Community, Ltd., Kenwood, N. Y.  
Standard Tool Co., Cleveland, O.  
Stow Flexible Shaft Co., 28th and Callowhill Sts., Philadelphia, Pa.
- Sockets, Flap Pole—**  
W. & J. Tiebout, 118 Chambers St., N. Y.
- Sockets, Shaft, Yoke, Pole and Whiffletree—**  
(See Tips or Sockets, Shaft, Yoke, Pole and Whiffletree.)
- Sockets, Whip—**  
E. B. Estes & Sons, 45-47 John St., N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Sockets, Wire Rope—**  
Keystone Drop Forge Works, Chester, Pa.  
A. Leschere & Sons, Rope Co., St. Louis.  
Trow & Holden, Barre, Vt.  
J. H. Williams & Co., Brooklyn, N. Y.
- Soda Tanks—**  
(See Tanks, Gas, Air, Soda, &c.)
- Soda Water Spoons—**  
(See Spoons, Soda, Silver Plated.)
- Sofas, Office—**  
(See Couches and Sofas, Office.)
- Softening Systems, Water—**  
Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
- Solder—**  
Charles H. Besly & Co., 15-21 Clinton St., Chicago, Ill.  
Empire Metal Co., Syracuse, N. Y.  
Garry Iron & Steel Co., Cleveland, O.  
Theo. Hertz Metal Co., St. Louis, Mo.  
Merchant & Co., Inc., Philadelphia, Pa.
- MERCHANTS.  
Bassett-Presley Co., Cleveland, O.  
Berger Bros Co., 231-237 Arch St., Philadelphia, Pa.  
Brown-Wales Co., Boston, Mass.  
Arthur C. Harvey Co., Boston, Mass.  
Charles Millar & Son Co., Utica, N. Y.  
J. J. Ryan & Co., 63-74 W. Monroe St., Chicago, Ill.  
Waite, Banlet & Co., Boston, Mass.
- Solder, Aluminum—**  
Empire Metal Co., Syracuse, N. Y.  
Janney, Steinmetz & Co., Drexel Bldg. Philadelphia, Pa.
- Solder, Braziers'—**  
Ansonia Brass & Copper Co., 99 John St., New York.
- Bridgeport Brass Co., Bridgeport, Ct.  
Henry Diston & Sons, Philadelphia, Pa.  
Merchant & Co., Inc., Philadelphia, Pa.  
Scovill Mfg. Co., Waterbury, Ct.
- Soldering, Copper Handles—**  
(See Handles, Soldering, Copper.)
- Soldering, Copper, Sets—**  
(See Soldering, Copper, Sets.)
- Soldering Furnaces—**  
(See Furnaces, Soldering.)
- Soldering Machines—**  
E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo, N. Y.
- Solder, Silver—**  
Empire Metal Co., Syracuse, N. Y.
- MERCHANTS.  
Jos. F. McCoy Co., 157 Chambers St., New York.
- Soles, Shoe—**  
N. F. Thayer Co., Boston, Mass.
- Solid Box Vises—**  
(See Vises, Solid Box.)
- Solid Metal Spoons and Forks—**  
(See Spoons and Forks, Solid Metal.)
- Sounding Leads—**  
(See Leads, Sounding.)
- Sounding Machines and Sounders, Marine—**  
Riggs & Bro., 310 Market St., Philadelphia, Pa.
- Souvenirs, Metal—**  
Crowe Metal Mfg. Co., 71 W. Jackson Blvd., Chicago, Ill.
- Sowers, Seed—**  
Goodell Co., Antrim, N. H.  
Whitman & Barnes Mfg. Co., Akron, O.
- Spacing Tables—**  
Hiles & Jones Co., Wilmington, Del.
- Spacing Tables, Automatic—**  
Long & Allstatter Co., Hamilton, O.
- Spade Handles—**  
(See Handles, Fork, Spade, &c.)
- Spades—**  
(See Shovels and Spades.)
- Spades, Butter—**  
Goodell Co., Antrim, N. H.
- Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.**
- Spades, Hedge—**  
(See Hedge Spades.)
- Spades, Marl—**  
(See Marl Gongs.)
- Spades, Post Hole—**  
(See Post Hole Spades.)
- Spading Forks—**  
(See Forks, Hay, Manure, Spading, &c.)
- Spanners, Carriage—**  
J. H. Williams & Co., Brooklyn, N. Y.
- Span Wire—**  
(See Wires, Electrical.)
- Spark Arresters—**  
(See Arresters, Spark.)
- Sparkling Points for Internal Combustion Engine—**  
Baker & Co., Newark, N. J.
- Spatulas—**  
American Cutlery Co., Chicago, Ill.  
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

**Speaking Tube Hardware—**

Berger Mfg. Co., Canton, O.  
W. R. Ostrander & Co., 22 Dey St., New York.

Reading Hardware Co., Reading, Pa.

**Speaking Tubes—**

(See Tubes, Speaking.)

**Spears, Fish—**

Arcade Mfg. Co., Freeport, Ill.  
Dame, Stoddard & Co., Boston, Mass.

**Special Machinery—**

Adriance Machine Works, Brooklyn, N. Y.  
Alliance Machine Co., Alliance, O.  
American Watch Tool Co., Waltham, Mass.

Automatic Machine Co., Bridgeport, Ct.  
Barbour-Stockwell Co., Cambridgeport, Mass.

H. G. Barr, Worcester, Mass.

Bethlehem Steel Co., So. Bethlehem, Pa.

Blake & Johnson, Waterbury, Ct.

Blanchard Machine Co., Boston, Mass.

E. W. Bliss Co., Brooklyn, N. Y.

Blount & Lovell, Boston, Mass.

Canton Foundry & Machine Co., Canton, O.

Thomas D. Carpenter, Brooklyn, N. Y.

Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Colonial Foundry & Machine Co., So. Norwalk, Ct.

Asa S. Cook Co., Hartford, Ct.

W. P. Davis Machine Co., Rochester, N. Y.

Detrick & Harvey Machine Co., Baltimore, Md.

Diamond Drill & Machine Co., Birdsboro, Pa.

Earle Gear & Machine Co., Oxford and Mascher Sts., Philadelphia, Pa.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Espen-Lucas Machine Co., Broad and Noble Sts., Philadelphia, Pa.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.

Fawcett Machine Co., Pittsburgh, Pa.

Fenn-Sadler Machine Co., Hartford, Ct.

Foster-Kimball Machine Co., Chicago, Ill.

Franklin Mfg. Co., New Haven, Ct.

Garry Iron & Steel Co., Cleveland, O.

Garrin Machine Co., Spring & Varick Sts., New York.

Geometric Drill Co., New Haven, Ct.

Globe Machine & Stamping Co., Cleveland, O.

Gould & Eberhardt, Newark, N. J.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Harman-Cogger Co., Bloomsburg, Pa.

E. Harrington, Son & Co., Philadelphia, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hill, Clarke & Co., Boston, Mass.

Hosier Mfg. Co., Freeport, Ill.

Hogson & Pettis Mfg. Co., New Haven, Ct.

Humphrey Machine Co., Keene, N. H.

I. H. Johnson, Jr. & Co., Inc., 1422 Calowhill St., Philadelphia, Pa.

R. E. Kidder, Worcester, Mass.

E. Königslow Stamping & Tool Works, Cleveland, O.

Chas. E. Leffler & Co., Brooklyn, N. Y.

John Loyd Co., 558 Water St., N. Y.

P. Hollinsworth Morris, 1501 So. Front St., Philadelphia, Pa.

Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 138-138 Liberty St., New York.

A. H. Nilson Machine Co., Bridgeport, Ct.

R. D. Nuttall Co., Pittsburg, Pa.

George A. Ohl & Co., Newark, N. J.

Penn Pattern Works, Chester, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Pratt & Whitney Co., Hartford, Ct.

Reading Machine & Tool Co., Reading, Pa.

Richard Mfg. Co., Bloomsburg, Pa.

J. M. Robinson Mfg. Co., Cincinnati, O.

Royersford Foundry & Machine Co., Royersford, Pa.

Wm. Sellers & Co., Inc., Philadelphia.

F. B. Shuster Co., New Haven, Ct.

Sigourney Tool Co., Hartford, Ct.

Smith & Caffrey, Syracuse, N. Y.

Standard Machinery Co., Providence, R. I.

Taunton Locomotive Mfg. Co., Taunton, Mass.

Turner Brass Works, Franklin and Michigan Sts., Chicago, Ill.

Tyrone Foundry & Machine Co., Tyrone, Pa.

U. S. Rapid-Fire Gun & Power Co., Derby, Ct.

Van Dorn & Dutton Co., Cleveland, O.

V. & O. Press Co., Brooklyn, N. Y.

Warsaw Elevator Co., Warsaw, N. Y.

Washburn Shops, Worcester, Mass.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Waterbury Machine Co., Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wickes Bros., Saginaw, Mich.

W. A. Wilson Machine Co., Rochester, N. Y.

**Special Screws, Wire—**

(See Screws, Special.)

**Specialties to Order, Metal—**

(See Metal Specialties to Order.)

**Specialties, Turned Metal—**

(See Turned Metal Work.)

**Specialties, Wooden—**

(See Wooden Specialties.)

**Spelter—**

John Davol & Sons, 100 John St., N. Y.

Theo. Hertz Metal Co., St. Louis, Mo.

Illinois Zinc Co., Peru, Ill.

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

**MERCHANTS.**

American Metal Co., 52 Broadway, N. Y.

Bassett-Fresley Co., Cleveland, O.

Brown-Wales Co., Boston, Mass.

Hendricks Bros., 49 Cliff St., New York.

Merchant & Co., Inc., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway, New York.

J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

**Spelter, Brazing—**

(See Brass, Brazing.)

- Spice Cans, Mills.**  
(See Cans, Mills.)
- Spiders, Steel.**  
(See Ware, Hollow Steel.)
- Spike Machinery.**  
American Machinery Co., Willoughby, O.  
National Machinery Co., Tiffin, O.
- Spikes, Boat.**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
M. Lanz & Sons, Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Spikes, Dock, Wharf, &c.**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
American Steel Hoop Co., Pittsburgh, Pa.  
Samuel Hall's Sons, 229-233 W. 10th St., New York.
- Spikes, Hand.**  
Morley Bros., Saginaw, Mich.
- Spikes, Marlin, Pickers, &c.**  
W. & J. Tiebout, 118 Chambers St., N. Y.
- Spikes, Railroad.**  
American Iron & Steel Mfg. Co., Lebanon, Pa.  
Jones & Laughlin Steel Co., Pittsburgh.
- Spindles, Carriage Seat.**  
W. B. Hartigan, Collinsville, Ct.
- Spinning, Chucks.**  
(See Chucks, Spinning.)
- Spinning, Metal.**  
Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.  
Goodwin & Kintz Co., Winsted, Ct.  
Naugatuck Mfg. Co., Naugatuck, Ct.
- Splicers, Wire.**  
(See also Pliers.)  
Otis A. Smith, Rockfall, Ct.
- Splicing Clamps.**  
(See Clamps, Splicing.)
- Splitting Machines, Belt Knife.**  
American Tool & Machine Co., Boston, Mass.
- Spoke Pointers, Shaves, Trimmers.**  
(See Pointers, Shaves, Trimmers.)
- Spoke Header and Bender, Bicycle.**  
Garvin Machine Co., Spring and Varick Sta., New York.  
E. J. Manville Machine Co., Waterbury, Ct.
- Snokes, Automobile.**  
Excelsior Needle Co., Torrington, Ct.  
Wire Goods Co., Worcester, Mass.
- Snokes, Bicycle.**  
Excelsior Needle Co., Torrington, Ct.  
Federal Mfg. Co., Cleveland, O.  
Reading Screw Co., Norristown, Pa.  
Wire Goods Co., Worcester, Mass.
- Snokes, Sinky.**  
Wire Goods Co., Worcester, Mass.
- Spoke Tenon Machines.**  
Silver Mfg. Co., Salem, O.
- Spoke Threaders, Bicycle.**  
(See Threaders, Bicycle Spoke.)
- Spoke Wire, Bicycle.**  
(See Wire, Bicycle Spoke.)
- Sponge Baskets.**  
(See Baskets, Sponge.)
- Spoiled Wire.**  
(See Wire, Spoiled.)
- Spooling Machines.**  
Hoefler Mfg. Co., Freeport, Ill.
- Spooling Machines, Wire.**  
Waterbury Machine Co., Waterbury, Ct.
- Spoon Holders.**  
(See Holders, Spoon, Silver Plated.)
- Spoons and Forks, Iron.**  
Acme Shear Co., Bridgeport, Ct.  
Charles Parker Co., Meriden, Ct.  
Sidney Shepard & Co., Buffalo, N. Y.
- Spoons and Forks, Silver and Silver Plated.**  
International Silver Co., 9-13 Maiden Lane, New York.  
Oneida Community, Niagara Falls, N. Y.
- Spoons and Forks, Solid Metal.**  
Charles Parker Co., Meriden, Ct.
- Spoons, Soda Water.**  
Erie Specialty Co., Erie, Pa.  
International Silver Co., 9-13 Maiden Lane, New York.  
Oneida Community, Niagara Falls, N. Y.
- Spoons, Telegraph.**  
(See Shovels and Spoons, Telegraph Pole.)
- Spoon Trays.**  
(See Trays, Silver Plated.)
- Sporting Goods, Jobbers.**  
(See Jobbers Hardware, Cutlery, Tools, Sporting Goods, &c.)
- Spouts, Grain.**  
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
- Spouts, Sap.**  
Charles Millar & Son Co., Utica, N. Y.
- Sprayers, Crop, Horse.**  
Bateman Mfg. Co., Grenloch, N. J.
- Spraying Pumps.**  
(See Pumps, Spraying.)
- Spring Balances.**  
(See Balances.)
- Spring Coiling Machines.**  
Blake & Johnson, Waterbury, Ct.  
Garvin Machine Co., Spring and Varick Sta., New York.  
Hoefler Mfg. Co., Freeport, Ill.  
E. J. Manville Machine Co., Waterbury, Ct.
- Springs, Agricultural Implement.**  
Bridgeport Chain Co., Bridgeport, Ct.  
Cary Spring Works, 240-242 W. 29th St., New York.  
Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.  
Harrow Spring Co., Kalamazoo, Mich.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.  
Sabin Machine Co., Montpelier, Vt.  
Wire Goods Co., Worcester, Mass.

**Springs, Air Brake—**

Cary Spring Works, 240-242 W. 29th St., New York.  
Cleveland Wire Spring Co., Cleveland, O.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.

**Springs, Automobile—**

Cary Spring Works, 240-242 W. 29th St., New York.  
Cleveland Wire Spring Co., Cleveland, O.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.

**Springs, Bed—**

Bridgeport Chain Co., Bridgeport, Ct.  
Cleveland Wire Spring Co., Cleveland, O.  
Clinton Wire Cloth Co., Clinton, Mass.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.

**Springs, Bicycle—**

Wallace Barnes Co., Bristol, Ct.  
Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.  
Sabin Machine Co., Montpelier, Vt.  
Tuck Mfg. Co., Brockton, Mass.

**Springs, Bird Cage—**

Bridgeport Chain Co., Bridgeport, Ct.  
Fred J. Meyers Mfg. Co., Hamilton, N. Y.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Parker Wire Goods Co., Worcester, Mass.  
Railway Steel Spring Co., 71 Broadway, New York.

Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Springs, Bobbin Rings—**

Morgan Spring Co., Worcester, Mass.

**Springs, Buggy Boot—**

Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.

**Springs, Car—**

Harrow Spring Co., Kalamazoo, Mich.  
Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.  
Railway Steel Spring Co., 71 Broadway, New York.

**Springs, Carriage, Wagon.**

**&c.**  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Railway Steel Spring Co., 71 Broadway, New York.

**Springs, Chair—**

(See Springs, Furniture and Upholstery.)

**Springs, Check—**

Cleveland Wire Spring Co., Cleveland, O.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
W. R. Ostrander & Co., 22 Dey St., N. Y.  
Raymond Mfg. Co., Corry, Pa.  
Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
Upson Nut Co., Cleveland, O.

**Springs, Clearer—**

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

**Springs, Clock—**

Wallace Barnes Co., Bristol, Ct.  
Boston Gear Works, Boston, Mass.  
Cary Spring Works, 240 W. 29th St., N. Y.

**Springs, Cutter Bar—**

Morgan Spring Co., Worcester, Mass.

**Springs, Door—**

Aracade Mfg. Co., Freeport, Ill.  
Wallace Barnes Co., Bristol, Ct.  
Bridgeport Chain Co., Bridgeport, Ct.  
Caldwell Mfg. Co., Rochester, N. Y.  
John Chatillon & Sons, 85 Cliff St., N. Y.  
Chicago Spring Butt Co., Chicago, Ill.  
Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Parker Wire Goods Co., Worcester, Mass.  
Pullman Mfg. Co., Rochester, N. Y.  
Railway Steel Spring Co., 71 Broadway, New York.  
Raymond Mfg. Co., Corry, Pa.  
Sabin Machine Co., Montpelier, Vt.  
Sargent & Co., 151 Leonard St., N. Y.  
Union Mfg. Co., New Britain, Ct.  
Wire Goods Co., Worcester, Mass.

**Springs, Drill—**

Morgan Spring Co., Worcester, Mass.

**Springs, Electrical Equip-**

**ment—**  
Wallace Barnes Co., Bristol, Ct.  
Bridgeport Chain Co., Bridgeport, Ct.  
Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

**Springs, Exerciser—**

Raymond Mfg. Co., Corry, Pa.

**Springs, Fender Car—**

Harrow Spring Co., Kalamazoo, Mich.

**Springs, Friction Washer—**

Morgan Spring Co., Worcester, Mass.

**Springs, Furniture and Up-**

**holstery—**

Bridgeport Chain Co., Bridgeport, Ct.  
Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.

**Springs, Governor—**

Wallace Barnes Co., Bristol, Ct.  
Bridgeport Chain Co., Bridgeport, Ct.  
Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.  
Sabin Machine Co., Montpelier, Vt.

**Springs, Gun—**

Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Hinge—**

Cleveland Wire Spring Co., Cleveland, O.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Lever—**

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Leader Teeth—**

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Loom—**

Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

**Springs, Machine—**

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Motor—**

Wallace Barnes Co., Bristol, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

**Springs, Oil Tempered—**

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

John Chatillon & Sons, 85 Cliff St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

**Springs, Organ and Piano—**

Wallace Barnes Co., Bristol, Ct.

Cleveland Wire Spring Co., Cleveland, O.

Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

**Springs, Piano Players—**

Sabin Machine Co., Montpelier, Vt.

**Springs, Plow—**

Morgan Spring Co., Worcester, Mass.

**Springs, Pump Valve—**

Wallace Barnes Co., Bristol, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Railroad Track****Scraper—**

Harrow Spring Co., Kalamazoo, Mich.

**Springs, Rocker—**

Bridgeport Chain Co., Bridgeport, Ct.

Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Sash—**

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Cleveland Wire Spring Co., Cleveland, O.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

**Springs, Seat and Back—**

Bridgeport Chain Co., Bridgeport, Ct.

Cleveland Wire Spring Co., Cleveland, O.

Harrow Spring Co., Kalamazoo, Mich.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

**Springs, Sheaf Carrier—**

Morgan Spring Co., Worcester, Mass.

**Springs, Shuttle—**

American Tube & Stamping Co., Bridgeport, Ct.

Morgan Spring Co., Worcester, Mass.

New England Specialty Co., North Easton, Mass.

**Springs, Squaring Shear—**

Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Raymond Mfg. Co., Corry, Pa.

**Springs, Steel—**

Wallace Barnes Co., Bristol, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

John Chatillon & Sons, 85 Cliff St., N. Y.

Cleveland Wire Spring Co., Cleveland, O.

Dunbar Bros., Bristol, Ct.

Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

R. C. Jenkinson & Co., Newark, N. J.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

New England Specialty Co., North Easton, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

Tuck Mfg. Co., Brockton, Mass.

S. & C. Wardlow, 95 John St., N. Y.

Wire Goods Co., Worcester, Mass.

**Springs, Tedder Fork—**

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Trolley—**

Bridgeport Chain Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Raymond Mfg. Co., Corry, Pa.

**Springs, Typewriter—**

Wallace Barnes Co., Bristol, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.

Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Tuck Mfg. Co., Brockton, Mass.

**Springs, Valve—**

Aughton Valve Co., Boston, Mass.  
Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.

**Springs, Wagon Brake—**  
Raymond Mfg. Co., Corry, Pa.

**Springs, Wagon Pole—**

Bridgeport Chain Co., Bridgeport, Ct.  
Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.

**Springs, Watch—**

Cary Spring Works, 240-242 W. 29th St., New York.

**Springs, Wind Mill—**

Cleveland Wire Spring Co., Cleveland, O.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.

**Springs, Window—**

Cary Spring Works, 240-242 W. 29th St., New York.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Railway Steel Spring Co., 71 Broadway, New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Stanley Works, New Britain, Ct.

**Springs, Wire—**

Wallace Barnes Co., Bristol, Ct.  
Bridgeport Chain Co., Bridgeport, Ct.  
Cary Spring Works, 240-242 W. 29th St., New York.

John Chatillon & Sons, 85 Cliff St., N. Y.  
Cleveland Wire Spring Co., Cleveland, O.  
Dunbar Bros., Bristol, Ct.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

R. C. Jenkinson & Co., Newark, N. J.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Pullman Mfg. Co., Rochester, N. Y.  
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.  
Sabin Machine Co., Montpelier, Vt.  
Tuck Mfg. Co., Brockton, Mass.  
Wire Goods Co., Worcester, Mass.

**Springs, Wringer—**

Bridgeport Chain Co., Bridgeport, Ct.  
Cleveland Wire Spring Co., Cleveland, O.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
Raymond Mfg. Co., Corry, Pa.  
Wire Goods Co., Worcester, Mass.

**Sprinklers, Fire—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Sprinklers, Lawn—**

Blair Mfg. Co., Springfield, Mass.  
Cleveland Lock Co., Cleveland, O.  
Deming Co., Salem, O.  
Enterprise Mfg. Co., Philadelphia, Pa.  
Humphreys Mfg. Co., Mansfield, O.  
Johnston & Sharp Mfg. Co., Ottumwa, Ia.  
F. E. Kohler & Co., Canton, O.  
John C. Kupferle, St. Louis, Mo.  
John H. McGowan Co., Cincinnati, O.  
McNab & Harlin Mfg. Co., 56 John St., New York.

Fred J. Meyers Mfg. Co., Hamilton, O.  
Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.  
Pleuger & Henger Mfg. Co., St. Louis.  
Pullman Mfg. Co., Rochester, N. Y.  
Wilcox Mfg. Co., Aurora, Ill.

**Sprinklers, Street—**

Taunton Locomotive Mfg. Co., Taunton, Mass.

**Sprocket Wheel Cutters—**

(See Cutters, Sprocket Wheel.)

**Sprocket Wheels—**

(See Wheels, Sprocket.)

**Spuds, Tobacco and Dandelion—**

American Fork & Hoe Co., Cleveland, O.  
Geo. H. Bishop & Co., Cincinnati, O.  
Withington & Cooley Mfg. Co., Jackson, Mich.

**Spurs, Malleable Iron and Solid Brass—**

North & Judd Mfg. Co., New Britain, Ct.

**Square and Gauge Combined—**

(See Gauge and Square, Combined.)

**Square Attachments—**

Tower & Lyon Co., 95 Chambers St., New York.

**Square Levels—**

(See Levels, Bit and Square.)

**Squares, Caliper—**

Brown & Sharpe Mfg. Co., Providence, R. I.

**Squares, Combination—**

Goodell-Pratt Co., Greenfield, Mass.  
L. S. Starrett Co., Athol, Mass.

**Squares, Iron and Steel—**

Brown & Sharpe Mfg. Co., Providence, R. I.  
Henry Diston & Sons, Philadelphia, Pa.  
Nicholls Mfg. Co., Ottumwa, Ia.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Squares, Machinists—**

Athol Machine Co., Athol, Mass.  
Brown & Sharpe Mfg. Co., Providence, R. I.  
Henry Diston & Sons, Philadelphia, Pa.  
Goodell-Pratt Co., Greenfield, Mass.  
Hogson & Pettis Mfg. Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

**Squares, Pocket—**

Bemis & Call Hardware & Tool Co.,  
Springfield, Mass.

**Squares, T—**

Henry Diston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
L. S. Starrett Co., Athol, Mass.

**Squares, Try and Miter—**

Athol Machine Co., Athol, Mass.  
E. O. Atkins & Co., Indianapolis, Ind.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Henry Diston & Sons, Philadelphia, Pa.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Stanley Rule & Level Co., New Britain, Ct.  
L. S. Starrett Co., Athol, Mass.

**Squaring Instruments—**

(See Instruments, Leveling and Squaring.)

**Squeegeers, Lemon—**

Arcade Mfg. Co., Freeport, Ill.  
M. J. Bartlett & Son, 186 S. Clark St.,  
Chicago, Ill.

Erie Specialty Co., Erie, Pa.  
Landers, Pray & Clark, New Britain, Ct.  
Charles Parker Co., Meriden, Ct.  
Plueger & Henger Mfg. Co., St. Louis.  
Sidney Shepard & Co., Buffalo, N. Y.  
John Sommer's Son, Newark, N. J.  
Tucker & Dorsey Mfg. Co., Indianapolis,  
Ind.

A. C. Williams, Ravenna, O.

**Squeegeers, Paddle Ball—**

Curry & Vannan, Danville, Pa.  
A. Garrison Foundry Co., Pittsburgh, Pa.  
George A. Hogg Iron & Steel Foundry  
Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.  
Philadelphia Roll & Machine Co., 23d St.  
& Washington Ave., Philadelphia.

**Squeezing Machines, Can—**

E. W. Bliss Co., Brooklyn, N. Y.  
Chas. Leffler & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo,  
N. Y.

**Stable Fixtures—**

W. J. Adam, Joliet, Ill.  
Wm. Bayley & Sons Co., Milwaukee,  
Wis.

Bethlehem Foundry & Machine Co.,  
South Bethlehem, Pa.

A. Buch's Sons Co., Elizabethtown, Pa.  
Buffalo Wire Works Co., Buffalo, N. Y.

S. Cheney & Son, Manlius, N. Y.  
Edward Darby & Sons, 233-235 Arch St.,  
Philadelphia, Pa.

Donovan Wire & Iron Co., Toledo, O.  
Enterprise Foundry & Fence Co., In-  
dianapolis, Ind.

Estey Wire Works, 59 Fulton St., N. Y.  
Gilbert & Bennett Mfg. Co., 277 Broad-  
way, New York.

Glen Mfg. Co., Ellwood City, Pa.  
Howard & Morse, 45 Fulton St., N. Y.

W. N. Kratzer & Co., Pittsburgh, Pa.  
Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.  
National Iron & Wire Co., Cleveland, O.

Nazareth Foundry & Machine Co., Naza-  
reth, Pa.  
Stewart Iron Works, Cincinnati, O.

Stowell Mfg. & Foundry Co., South Mil-  
waukee, Wis.  
W. S. Tyler Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.  
Warsaw Elevator Co., Warsaw, N. Y.  
West Side Foundry Co., Troy, N. Y.  
Wilcox Mfg. Co., Aurora, Ill.

**Stacks for Lumber—**

Souls Steam Feed Works, Meridian, Miss.

**Stacks, Steel—**

(See Chimneys, Steel.)

**Stains, Shingle, Wood, &c.—**

American Asbestos Co., Terre Haute, Ind.  
Samuel Cabot, Boston, Mass.  
Wm. Connors Paint Mfg. Co., Troy, N. Y.  
Devce & Reynolds Co., 176 Randolph St.,  
Chicago, Ill.

John Lucas & Co., Race and 4th Sta.,  
Philadelphia, Pa.

Eugene E. Nice, 272-274 S. 2d St., Phila-  
delphia, Pa.

Wadsworth-Howland Co., Indiana Ave.  
and 13th St., Chicago, Ill.

**Stairs, Iron and Steel—**

Wm. Bayley & Sons Co., Milwaukee,  
Wis.

Bethlehem Foundry & Machine Co.,  
South Bethlehem, Pa.

Donovan Wire & Iron Co., Toledo, O.  
Forest City Steel & Iron Co., Cleveland.

Glen Mfg. Co., Ellwood City, Pa.  
W. N. Kratzer & Co., Pittsburgh, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred J. Meyers Mfg. Co., Hamilton, O.

Nazareth Foundry & Machine Co., Naza-  
reth, Pa.

Stewart Iron Works, Cincinnati, O.  
Van Dorn Iron Works Co., Cleveland, O.

**Stair Treads, Brass—**

(See Plates, Brass Step.)

**Stake Chains—**

(See Chains, Picket, Stake, &c.)

**Stake Holders, Wagon—**

(See Holders, Stake Wagon.)

**Stakes, Cornice Makers—**

Niagara Machine & Tool Works, Buffalo,  
N. Y.

**Stakes, Tinnerns—**

Niagara Machine & Tool Works, Buf-  
falo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

**Stalks, Whip—**

E. B. Estes & Sons, 45-47 John St., N. Y.

**Stamped Iron and Steel—**

American Sheet & Tin Plate Co., Pitts-  
burgh, Pa.

**Stamped or Milled Turned**

**Metal Work to Order—**  
(See Metal Work, Milled, Turned or  
Stamped to Order.)

**Stamp Holders, Rubber—**

(See Holders, Rubber Stamp.)

**Stampings, Bicycle—**

(See Bicycle Parts.)

**Stamping, Nickelized Sheets**

**for—**

American Nickeloid & Mfg. Co., Peru, Ill.

**Stamping, Sheet Metal—**

Acorn Brass Mfg. Co., 206 Fulton St.,  
Chicago, Ill.

Adriance Machine Works, Brooklyn, N. Y.

Avery Stamping Co., Cleveland, O.

Ray State Stamping Co., Worcester, Mass.

W. J. Clark Co., Salem, O.

Cleveland Stamping & Tool Co., Cleve-  
land, O.

Crosby Co., Buffalo, N. Y.  
Diamond Saw & Stamping Works, Buffalo, N. Y.  
Federal Mfg. Co., Cleveland, O.  
Globe Machine & Stamping Co., Cleveland, O.  
Goodwin & Kintz Co., Winsted, Ct.  
Hoerle Mfg. Co., Pittsburgh, Pa.  
R. C. Jenkinson & Co., Newark, N. J.  
E. Konigsberg Stamping & Tool Works, Cleveland, O.  
Chas. Lefter & Co., Brooklyn, N. Y.  
Metal Stamping Co., Niagara Falls, N. Y.  
Frank Mossberg Co., Attleboro, Mass.  
Mossberg Wrench Co., Central Falls, R. I.  
Wm. B. Scaife & Sons Co., Pittsburgh.  
Ira B. Smith, Bristol, Ct.  
Standard Pressed Steel Co., 20th and Clearfield Sts., Philadelphia, Pa.  
Waterbury Brass Co., Waterbury, Ct.  
Wilson & Smith, Worcester, Mass.  
Wrought Washer Mfg. Co., Milwaukee, Wis.

**Stamps and Dies, Steel—**

Adriance Machine Works, Brooklyn, N. Y.  
Becker Name Plate Co., Boston, Mass.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-100 N. Clinton St., Chicago, Ill.  
Globe Machine & Stamping Co., Cleveland, O.  
Hilles & Jones Co., Wilmington, Del.  
Hogson & Pettis Mfg. Co., New Haven, Ct.  
Howard Iron Works, Buffalo, N. Y.  
E. Konigsberg Stamping & Tool Works, Cleveland, O.  
Chas. Lefter & Co., Brooklyn, N. Y.  
John Loyd Co., 558 Water St., New York.  
Metal Stamping Co., Niagara Falls, N. Y.  
Geo. M. Ness, Jr., 61 Fulton St., N. Y.  
Niagara Machine & Tool Works, Buffalo, N. Y.  
Richard Mfg. Co., Bloomsburg, Pa.  
Schwerdtle Stamp Co., Bridgeport, Ct.  
Ira B. Smith, Bristol, Ct.  
Standard Mfg. Co., Providence, R. I.  
Wilson & Smith, Worcester, Mass.  
(See also Dies.)

**Stamps, Brass—**

Geo. M. Ness, Jr., 61 Fulton St., N. Y.  
Schwerdtle Stamp Co., Bridgeport, Ct.

**Stamps, Dating Railroad Ticket—**

American Railway Supply Co., 24 Park Place, New York.  
H. H. Franklin Mfg. Co., Syracuse, N. Y.  
R. Woodman Mfg. & Supply Co., Boston, Mass.

**Stamps, Rubber—**

Geo. M. Ness, Jr., 61 Fulton St., N. Y.  
Schwerdtle Stamp Co., Bridgeport, Ct.

**Stamps, Steel Name—**

E. Konigsberg Stamping & Tool Works, Cleveland, O.

**Stamps, Time—**

C. Nanz & Co., 127 Duane St., New York.  
Riggs & Bro., 310 Market St., Philadelphia, Pa.

**Stanchions, Cattle—**

Warsaw Elevator Co., Warsaw, N. Y.

**Stanchions, Hand Rope—**

Edson Mfg. Co., Boston, Mass.  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Standards and Sockets, Canopy Top—**

E. D. Clapp Mfg. Co., Auburn, N. Y.

**Standpipes—**

American Valve & Meter Co., Cincinnati, O.

**E. Keeler Co., Williamsport, Pa.**

L. O. Koven & Bro., 50 Cliff St., N. Y.  
Meehan Boiler & Construction Co., Louisville, O.

**Wm. B. Pollock Co., Youngstown, O.**

Riter-Conley Mfg. Co., Pittsburgh, Pa.  
Sheffield Car Co., Three Rivers, Mich.  
Struthers, Wells & Co., Warren, Pa.

**Tudor Boiler Mfg. Co., Cincinnati, O.**

Wickes Bros., Saginaw, Mich.  
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Stands and Holders, Bicycle—**

Boston & Lockport Block Co., Boston.  
City Forge & Iron Works, Dayton, O.  
Lane Bros. Co., Poughkeepsie, N. Y.  
Miller & Van Winkle, Brooklyn, N. Y.  
F. E. Myers & Bro., Ashland, O.  
A. J. Phillips Co., Fenton, Mich.  
Wire Goods Co., Worcester, Mass.

**Stands and Lasts—**

(See Lasts and Stands, Shoe.)

**Stands and Racks, Ginger Ale—**

New York Stamping Co., Brooklyn, N. Y.  
**Stands, Axe and Seythe—**  
J. D. Warren Mfg. Co., Chicago, Ill.

**Stands, Blower—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Stands, Calendar—**

Wrightsville Hardware Co., Wrightsville, Pa.

**Stands, Coffee Pot—**

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Sargent & Co., 151 Leonard St., N. Y.**

Stover Mfg. Co., Freeport, Ill.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Stands, Coffee Pot, Wire—**

(See Household Articles, Wire.)

**Stands, Display, Axe—**

W. N. Martin, Hickory, N. C.  
**Stands, Display, Garment—**  
Fred. J. Meyers Mfg. Co., Hamilton, O.

**Stands, Display, Plow—**

W. N. Martin, Hickory, N. C.  
**Stands, Emery Wheel and Polishing—**  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

**Royersford Foundry & Machine Co., Royersford, Pa.**

**Stands, Floor—**

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.  
Case Mfg. Co., Columbus, O.

**Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.**

Dodge Mfg. Co., Mishawaka, Ind.  
Jones & Laughlin Steel Co., Pittsburgh.



**Stands, Flower Pot—**

Buffalo Wire Works Co., Buffalo, N. Y.  
 Edward Darby & Sons, 233-235 Arch St.,  
 Philadelphia, Pa.  
 Estey Wire Works Co., 65 Fulton St.,  
 N. Y.  
 Gilbert & Bennett Mfg. Co., 277 Broad-  
 way, New York.  
 Howard & Morse, 45 Fulton St., N. Y.  
 Ludlow-Saylor Wire Co., St. Louis, Mo.  
 Maine Mfg. Co., Nashua, N. H.  
 Fred J. Meyers Mfg. Co., Hamilton, O.  
 Stover Mfg. Co., Freeport, Ill.  
 Wright Wire Co., Worcester, Mass.

**Stands, Letter Press—**

Globe-Wernicke Co., Cincinnati, O.

**Stands, Mule Pulley—**

H. W. Caldwell & Son Co., Western Ave.  
 and 17th St., Chicago, Ill.  
 Case Mfg. Co., Columbus, O.  
 Jones & Laughlin Steel Co., Pittsburgh.  
 Poole Engineering & Machine Co., Balti-  
 more, Md.

**Stands, Sad Iron—**

Fanner Mfg. Co., Cleveland, O.  
 Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.  
 Pleuger & Henger Mfg. Co., St. Louis.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Stover Mfg. Co., Freeport, Ill.  
 Wrightsville Hardware Co., Wrightsville,  
 Pa.

**Stands, Shovel and Tong—**

Sargent & Co., 151 Leonard St., N. Y.

**Stands, Umbrella—**

Bethlehem Foundry & Machine Co., So.  
 Bethlehem, Pa.  
 Buffalo Wire Works Co., Buffalo, N. Y.  
 W. J. Clark Co., Salem, O.  
 Edward Darby & Sons, 233-235 Arch St.,  
 Philadelphia, Pa.  
 Estey Wire Works Co., 59 Fulton St.,  
 N. Y.

Gilbert & Bennett Mfg. Co., 277 Broad-  
 way, New York.

Goodwin & Kintz Co., Winsted, Ct.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

Russell & Erwin Mfg. Co., 43-47 Cham-  
 bers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Stands, Wash—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Stands, Wash Tub—**

(See Benches, Tub and Wringer.)

**Staple Drivers—**

(See Drivers, Staple.)

**Staple Machinery—**

Blake & Johnson, Waterbury, Ct.  
 E. J. Manville Machine Co., Waterbury,  
 Ct.

F. B. Shuster Co., New Haven, Ct.

**Staples—**

(See Wrought Iron Goods.)

**Staples and Loops, Furni-  
ture—**

Grand Crossing Tack Co., Grand Cross-  
 ing, Ill.

**Staples, Nutted—**

Upon Nut Co., Cleveland, O.

**Staples, Waxen Bow—**

Sargent & Co., 151 Leonard St., N. Y.

**Staples, Wire—**

Clinton Wire Cloth Co., Clinton, Mass.  
 Cobb & Drew, Plymouth, Mass.  
 Crawfordsville Wire & Nail Co., Craw-  
 fordsville, Ind.  
 Edward Darby & Sons, 233-235 Arch St.,  
 Philadelphia, Pa.  
 Wm. D. Gibson Co., 23-27 No. Clinton St.,  
 Chicago, Ill.  
 Gilbert & Bennett Mfg. Co., 277 Broad-  
 way, New York.

Grand Crossing Tack Co., Grand Cross-  
 ing, Ill.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

Pittsburgh Steel Co., Pittsburgh, Pa.

Plymouth Mills, Plymouth, Mass.

Reading Screw Co., Norristown, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Spencer Wire Co., Worcester, Mass.

E. H. Titchener & Co., Binghamton, N. Y.

Western Wire Goods Co., Buffalo, N. Y.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Starters, Hung—**

Boston & Lockport Stock Co., Boston.

Piqua Handle & Mfg. Co., Piqua, O.

Union Hardware Co., Torrington, Ct.

**Stationers' Hardware (Ink-  
stands, Clips, Pen Racks,  
and Trays, &c.)—**

Blake & Johnson, Waterbury, Ct.

Bridgeport Hardware Mfg. Co., Bridge-  
 port, Ct.

Goodwin & Kintz Co., Winsted, Ct.

Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

Reading Hardware Co., Reading, Pa.

Sargent & Co., 151 Leonard St., N. Y.

Susquehanna Castings Co., Wrightsville,  
 Pa.

**Stationers' Wire Goods.****Desk Baskets, &c.—**

Kilbourne Mfg. Co., Troy, N. Y.

**Station House Cages—**

(See Jails, Jail Cells, &c.)

**Statuary, Sheet Metal—**

Edwards Mfg. Co., Cincinnati, O.

**Stave Knives—**

(See Knives, Machine.)

**Stave Sawing and Finishing****Machinery—**

Peter Gerlach Co., Cleveland, O.

**Stay Bolt Clippers, Rollers—**

(See Clippers, Rollers.)

**Stay Bolt Iron—**

(See Iron, Rivet and Stay Bolt.)

**Stay Bolts, Boiler—**

(See Bolts, Boiler Stay.)

**Stay Bolts, Rollers—**

(See Bolts, Rollers.)

**Stays, Bicycle—**

(See Bicycle Parts.)

**Stays, Roller—**

Oronk & Carrier Mfg. Co., Elmira, N. Y.

Lane Bros. Co., Poughkeepsie, N. Y.

McKinney Mfg. Co., Allegheny, Pa.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St.,  
 New York.

Reading Hardware Co., Reading, Pa.  
Sargent & Co., 151 Leonard St., N. Y.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Stays, Transom-**  
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Stays, Trunk Lid-**  
B. O. Jenkinson & Co., Newark, N. J.  
J. H. Sessions & Son, Bristol, Ct.

**Stays, Wire Fencing-**  
B. B. Fence Co., Peru, Ind.  
International Steel Post Co., St. Louis.  
Racine Tank Lug Co., Racine, Wis.

**Steak Pounders-**  
(See Pounders, Steak.)

**Steam Boiler Inspection-**  
Hartford Steam Boiler Inspection & Insurance Co., Hartford, Ct.

**Steamers, Thawing-**  
White Mfg. Co., 33 Michigan Ave., Chicago, Ill.

**Steam Fitters' Supplies-**  
American Valve & Meter Co., Cincinnati, O.

Crane Co., Chicago, Ill.  
Hauck Mfg. Co., Cincinnati, O.  
Helios-Upton Co., Peabody, Mass.  
Humphreys Mfg. Co., Mansfield, O.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
Chas. Millar & Son Co., Utica, N. Y.  
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

**Steel, Agricultural-**  
Sweet's Steel Co., Syracuse, N. Y.

**Steel, Axe-**  
Sweet's Steel Co., Syracuse, N. Y.  
Vulcan Crucible Steel Co., Aliquippa, Pa.

**Steel, Ball-**  
Vulcan Crucible Steel Co., Aliquippa, Pa.

**Steel Balls, Bars, &c.-**  
(See Balls, Bars, &c.)

**Steel, Band Saw-**  
Henry Disston & Sons, Philadelphia, Pa.

**Steel, Basic-**  
La Belle Iron Works, Steubenville, O.

**Steel Brokers and Merchants-**  
(See Iron and Steel Brokers and Merchants.)

**Steel, Chrome-**  
Chrome Steel Works, Brooklyn, N. Y.

**Steel, Clock Spring-**  
Braeburn Steel Co., Braeburn, Pa.  
Cary Spring Works, 240-242 W. 29th St., New York.

Abel Rollason & Sons, Birmingham, England.

S. & C. Wardlow, 95 John St., N. Y.  
**Steel, Cold Drawn Shapes-**  
American Steel Hoop Co., Pittsburgh.  
Henry Disston & Sons, Philadelphia, Pa.  
Finished Steel Co., Youngstown, O.  
C. Pardee Works, Perth Amboy, N. J.  
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Edgar T. Ward & Sons, Boston, Mass.

**Steel, Cold Rolled-**  
American Tube & Stamping Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Columbia Bridge Co., Pittsburgh, Pa.  
Henry Disston & Sons, Philadelphia, Pa.  
Elliott-Blair Steel Co., New Castle, Pa.  
Federal Mfg. Co., Cleveland, O.  
Goff, Horner & Co., Ltd., Pittsburgh, Pa.  
Wm. Jessop & Sons, Ltd., 91 John St., New York.

Jones & Laughlin Steel Co., Pittsburgh.  
Miller & Van Winkle, Brooklyn, N. Y.  
Republic Iron & Steel Co., Chicago, Ill.  
Abel Rollason & Sons, Birmingham, England.

Edgar T. Ward & Sons, Boston, Mass.  
S. & C. Wardlow, 95 John St., N. Y.  
Washburn Wire Co., Phillipsdale, E. I.  
West Leechburg Steel Co., Pittsburgh, Pa.

**MERCHANTS.**  
Bourne-Fuller Co., Cleveland, O.  
Denman & Davis, 85-87 John St., N. Y.  
Arthur C. Harvey Co., Boston, Mass.  
Jos. F. McCoy Co., 157 Chambers St., New York.

Patriarche & Bell, 215 Pearl St., N. Y.  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Whelock, Lovejoy & Co., 23 Cliff St., New York.

**Steel, Cold Rolled Sheet.**  
**Hot Rolled Sheet-**

(See Sheet Steel.)

**Steel, Cold Rolled Spring-**  
Elliott-Blair Steel Co., New Castle, Pa.

**Steel, Cold Rolled Strip-**  
American Tube & Stamping Co., Bridgeport, Ct.

Henry Disston & Sons, Philadelphia, Pa.  
Elliott-Blair Steel Co., New Castle, Pa.  
Griffin Mfg. Co., Erie, Pa.  
Miller & Van Winkle, Brooklyn, N. Y.  
Abel Rollason & Sons, Birmingham, England.

Stanley Works, New Britain, Ct.  
Edgar T. Ward & Sons, Boston, Mass.  
S. & C. Wardlow, 95 John St., N. Y.  
West Leechburg Steel Co., Pittsburgh, Pa.

**MERCHANTS.**  
Bassett-Presley Co., Cleveland, O.  
Hermann Boker & Co., 101-103 Duane St., New York.

George Nash & Co., 24 So. Clinton St., Chicago, Ill.

Charles G. Stevens Co., 58-60 S. Canal St., Chicago, Ill.

Wetherell Bros., 120 Liberty St., N. Y.

**Steel, Corset-**  
American Tube & Stamping Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St., New York.

Miller & Van Winkle, Brooklyn, N. Y.

**Steel, Crucible Cast-**  
Braeburn Steel Co., Braeburn, Pa.  
Chrome Steel Works, Brooklyn, N. Y.  
Henry Disston & Sons, Philadelphia, Pa.  
Hobson, Houghton & Co., Ltd., 98 John St., New York.

Wm. Jessop & Sons, Ltd., 91 John St., New York.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Pope-Robinson Co., Hyde Park, Mass.

Abel Rollason & Sons, Birmingham, England.

**Vulcan Crucible Steel Co., Aliquippa, Pa.**  
S. & C. Wardlow, 95 John St., N. Y.

#### MERCHANTS.

**Bassett-Presley Co., Cleveland, O.**  
**Hermann Boker & Co., 101-103 Duane St., New York.**  
**Bourne-Fuller Co., Cleveland, O.**  
**Denman & Davis, 87 John St., N. Y.**  
**Hawkrider Bros., Boston, Mass.**  
**B. M. Jones & Co., Boston, Mass.**  
**Patriarche & Bell, 215 Pearl St., N. Y.**  
**Charles G. Stevens Co., 58-60 S. Canal St., Chicago, Ill.**  
**Wheelock, Lovejoy & Co., 23 Cliff St., New York.**

#### Steel, Cutlery—

**Henry Disston & Sons, Philadelphia, Pa.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**  
**S. & C. Wardlow, 95 John St., New York.**

#### Steel, Die—

**Henry Disston & Sons, Philadelphia, Pa.**  
**Wm. Jessop & Sons, Ltd., 91 John St., New York.**  
**Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**  
**S. & C. Wardlow, 95 John St., New York.**

#### MERCHANTS.

**Bourne-Fuller Co., Cleveland, O.**  
**Brown-Wales Co., Boston, Mass.**  
**Denman & Davis, 87 John St., N. Y.**  
**Patriarche & Bell, 215 Pearl St., N. Y.**  
**Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.**  
**Charles G. Stevens Co., 58-60 S. Canal St., Chicago, Ill.**

#### Steel, Double Shear—

**Wm. Jessop & Sons, Ltd., 91 John St., New York.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**  
**S. & C. Wardlow, 95 John St., N. Y.**

#### Steel, File—

**Sweet's Steel Co., Syracuse, N. Y.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### Steel File Cases—

(See Cases, Document and File.)

#### Steel, Fork—

**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### Steel Goods Brackets—

(See Brackets, Shelf, Doe, Rake, Fork, &c.)

#### Steel Goods Racks—

(See Racks, Steel Goods.)

#### Steel, Hammer—

**Braeburn Steel Co., Braeburn, Pa.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### Steel, Hot Rolled Strip—

**American Tube & Stamping Co., Bridgeport, Ct.**

**West Leechburg Steel Co., Pittsburgh, Pa.**

**Columbia Bridge Co., Pittsburgh, Pa.**

#### Steel, Lathe—

**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### Steel, Machine Knife—

**Vulcan Crucible Steel Co., Aliquippa, Pa.**

**S. & C. Wardlow, 95 John St., New York.**

#### Steel, Machinery—

**Braeburn Steel Co., Braeburn, Pa.**

**Henry Disston & Sons, Philadelphia, Pa.**

**Vulcan Crucible Steel Co., Aliquippa, Pa.**

**Wellman-Seaver-Morgan Co., Cleveland, O.**

#### MERCHANTS.

**Bassett-Presley Co., Cleveland, O.**  
**Bourne-Fuller Co., Cleveland, O.**  
**Brown-Wales Co., Boston, Mass.**  
**Hawkrider Bros., Boston, Mass.**  
**Ogden & Wallace, 577 Greenwich St., New York.**  
**Patriarche & Bell, 215 Pearl St., N. Y.**  
**Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.**  
**Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.**

#### Steel, Magnet—

**Sweet's Steel Co., Syracuse, N. Y.**

#### Steel, Merchant—

**La Belle Iron Works, Steubenville, O.**

#### Steel, Merchants' Special—

**B. M. Jones & Co., Boston, Mass.**

#### Steel, Munnet's Special—

**B. M. Jones & Co., Boston, Mass.**

#### Steel, Pen—

**S. & C. Wardlow, 95 John St., New York.**

#### Steel Plants, Open Hearth—

**Morgan Construction Co., Worcester, Mass.**

#### Steel, Plow—

**American Steel Hoop Co., Pittsburgh, Pa.**

#### Steel, Plow, Soft Center—

#### MERCHANTS.

**Hermann Boker & Co., 101-103 Duane St., New York.**  
**Bourne-Fuller Co., Cleveland, O.**

#### Steel, Polished Hack Saw

**Frame—**  
**Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.**

#### Steel Rim for Pneumatic

**Wheels—**  
**Sweet's Steel Co., Syracuse, N. Y.**

#### Steel, Rock Drill—

**Braeburn Steel Co., Braeburn, Pa.**

**Abel Rollason & Sons, Birmingham, Eng-**

**land.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### MERCHANTS.

**Bourne-Fuller Co., Cleveland, O.**  
**Brown-Wales Co., Boston, Mass.**  
**Nazareth Foundry & Machine Co., Naza-**

**reth, Pa.**  
**Patriarche & Bell, 215 Pearl St., N. Y.**  
**Joseph T. Ryerson & Son, 18-22 Milwaukee**

**Ave., Chicago, Ill.**

#### Steel, Roller Bearing—

**Kidd Bros. & Burgher Steel Wire Co.,**

**McKee's Rocks, Pa.**  
**Pittsburgh Tool Steel Wire Co., Monaca,**

**Pa.**  
**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### Steel, Roller, Hardened.

**Forged—**  
**(See Rolls, Hardened, Forged Steel.)**

#### Steel, Rotary Planished—

**Vulcan Crucible Steel Co., Aliquippa, Pa.**

#### Steel, Saw—

**American Steel Hoop Co., Pittsburgh, Pa.**

**Henry Disston & Sons, Philadelphia, Pa.**

**Hobson, Houghton & Co., Ltd., 98 John**

**St., New York.**  
**Wm. Jessop & Sons, Ltd., 91 John St.,**

**New York.**  
**S. & C. Wardlow, 95 John St., N. Y.**

#### Steels, Buffer and Scraper—

**Tuck Mfg. Co., Brockton, Mass.**

**Steels, Butcher, &c.—**

American Outlery Co., Chicago, Ill.  
John Chatillon & Sons, 85 Cliff St., New York.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
Goodell Co., Antrim, Mich.  
C. & A. Hoffman, Frankford, Phila.  
Landers, Frary & Clark, New Britain, Ct.  
Nicholson File Co., Providence, R. I.

**Steel, Self Hardening—**

Armstrong Bros. Tool Co., Chicago, Ill.  
Bethlehem Steel Co., So. Bethlehem, Pa.  
Heller Bros. Co., Newark, N. J.  
Hobson, Houghton & Co., Ltd., 98 John St., New York.

Wm. Jessop & Sons, 91 John St., N. Y.  
McInnes Steel Co., Corry, Pa.  
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.  
Vulcan Crucible Steel Co., Aliquippa, Pa.

**MERCHANTS.**

Bassett-Prealey Co., Cleveland, O.  
Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
Denham & Davis, 87 John St., N. Y.  
Fairbanks Co., 416 Broome St., New York.  
Hawbridge Bros., Boston, Mass.  
Patriarche & Bell, 215 Pearl St., N. Y.  
William H. Wallace & Co., 66 Broadway, New York.

Edgar T. Ward & Sons, Boston, Mass.

**Steel Sheets Punched to Order—**

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.  
Chas. Mundt & Sons, 41 Pearl St., N. Y.

**Steel, Shovel—**

La Belle Iron Works, Steubenville, O.  
Steel, Shov Card—  
American Sheet & Tin Plate Co., Pittsburgh, Pa.

**Steel, Spring—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
Harrow Spring Co., Kalamazoo, Mich.  
Sweet's Steel Co., Syracuse, N. Y.  
Vulcan Crucible Steel Co., Aliquippa, Pa.

**Steel, Stamping Special—**

La Belle Iron Works, Steubenville, O.

**Steel, Swedish—**

(See Iron and Steel, Swedish.)

**Steel, Tape Line—**

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Steel, Tire—**

American Steel Hoop Co., Pittsburgh, Pa.

Sweet's Steel Co., Syracuse, N. Y.

**Steel, Toe Calk—**

Sweet's Steel Co., Syracuse, N. Y.

**Steel, Tool—**

Bethlehem Steel Co., So. Bethlehem, Pa.  
Braeburn Steel Co., Braeburn, Pa.  
Columbia Bridge Co., Pittsburgh, Pa.  
Henry Dismar & Sons, Philadelphia, Pa.  
Harrow Spring Co., Kalamazoo, Mich.  
Heller Bros. Co., Newark, N. J.  
Hobson, Houghton & Co., 98 John St., New York.

Wm. Jessop & Sons, 91 John St., N. Y.

McInnes Steel Co., Ltd., Corry, Pa.

Vulcan Crucible Steel Co., Aliquippa, Pa.

Edgar T. Ward & Sons, Boston, Mass.

S. & C. Wardlow, 95 John St., N. Y.

**MERCHANTS.**

Bassett-Prealey Co., Cleveland, O.  
Hermann Boker & Co., 101-103 Duane St., New York.

Bourne-Fuller Co., Cleveland, O.  
Brown-Wales Co., Boston, Mass.  
Denham & Davis, 87 John St., N. Y.  
Fairbanks Co., 416 Broome St., New York.  
Walter Graham, Harrison Bldg., Philadelphia, Pa.

Arthur C. Harvey Co., Boston, Mass.  
B. M. Jones & Co., Boston, Mass.  
McKenna Bros. Brass Co., Pittsburgh, Pa.  
George Nash & Co., 24 So. Clinton St., Chicago, Ill.

Nazareth Foundry & Machine Co., Nazareth, Pa.

Ogden & Wallace, 577 Greenwich St., New York.

Patriarche & Bell, 215 Pearl St., N. Y.

F. R. Phillips & Sons Co., Philadelphia.

Joseph T. Ryerson & Son, 18 Milwaukee Ave., Chicago, Ill.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

**Steel, Watch Spring—**

Cary Spring Works, 240-242 W. 29th St., New York.

S. & C. Wardlow, 95 John St., N. Y.

**Steel, Welded, Chrome Steel and Iron—**

Chrome Steel Works, Brooklyn, N. Y.

**Steel Welding—**

(See Welding, Iron and Steel, Thermit Process.)

**Steel Wire Brushes—**

(See Brushes, Steel Wire.)

**Steel Wire, Cast—**

(See Wire, Cast Steel.)

**Steel Works Machinery—**

(See Rolling Mill Machinery.)

**Steelyards—**

Bemis & Call Hardware & Tool Co., Springfield, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Steering Gears, Steam—**

Pawling & Harnischfeger, Milwaukee, Wis.

Wickes Bros., Saginaw, Mich.

**Stencils—**

Hogson & Pettis Mfg. Co., New Haven, Ct.

S. G. Monce, Unionville, Ct.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

**Stenners, Cedar, Kraut—**

Richmond Cedar Works, Richmond, Va.

**Step Ladder Joints—**

(See Joints, Step Ladder.)

**Step Ladders—**

(See Ladders, Step.)

**Step Plates, Brass—**

(See Plates, Brass, Step.)

**Steps, Pole—**

(See Telegraph and Telephone Pole Supplies.)

**Steps, Wagon and Carriage—**

Blakelee Forging Co., Plantsville, Ct.

Striely & Foote Co., Newark, N. J.

- Stereotype Metal**—  
Theo. Hertz Metal Co., St. Louis, Mo.  
Merchant & Co., Inc., Philadelphia, Pa.
- Stereotyping**—  
St. Louis Electrotype Foundry, St. Louis.
- Stew Pans, Sectional**—  
(See Pans, Sectional Stew.)
- Sticks, Clapper**—  
E. B. Estes & Sons, 45-47 John St., N. Y.
- Sticks, Emery and Corundum**—  
American Emery Wheel Works, Providence, R. I.
- Sticks, Gambrel**—  
Piqua Handle & Mfg. Co., Piqua, O.
- Stiffeners, Heel**—  
Louis Sacks Iron Foundry, Newark, N. J.  
Stowell Mfg. & Foundry Co., South Milwaukee, Wis.
- Stillis, Oil and Tar**—  
Clarendon Boiler Works, No. Clarendon, Pa.
- Dimmick Pipe Co.**, Birmingham, Ala.  
Wm. B. Pollock Co., Youngstown, O.
- Ritter-Conley Mfg. Co.**, Pittsburgh, Pa.  
Struthers, Wells & Co., Warren, Pa.  
Tudor Boiler Mfg. Co., Cincinnati, O.
- Stilts, Boys**—  
A. J. Phillips Co., Fenton, Mich.
- Stirrups, Machine**—  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Stirrups, Saddle**—  
Wrightsville Hardware Co., Wrightsville, Pa.
- Stirrups, Timber**—  
(See Hangers and Stirrups.)
- Stitching Machines, Wire**—  
(See Wire Stitching Machines.)
- Stock Scales, Tanks**—  
(See Scales, Tanks.)
- Stocks, Gun**—  
E. B. Estes & Sons, 45-47 John St., N. Y.
- Stocks, Taps and Dies**—  
Acme Machinery Co., Cleveland, O.  
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Armstrong Mfg. Co.**, Bridgeport, Ct.  
Bay State Tap & Die Co., Taunton, Mass.
- C. H. Besly & Co.**, 10-12 No. Canal St., Chicago, Ill.
- Billings & Spencer Co.**, Hartford, Ct.  
H. B. Brown & Co., East Hampton, Ct.  
Butterfield & Co., Derby Line, Vt.  
S. W. Card Mfg. Co., Mansfield, Mass.  
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.
- Chicago Scale Co.**, 222-226 Jackson Boulevard, Chicago, Ill.
- Crane Co.**, Chicago, Ill.
- Curtis & Curtis Co.**, Bridgeport, Ct.
- Etna Mfg. Co.**, 233 Broadway, New York.
- Fairbanks Co.**, 416 Broome St., N. Y.
- Samuel Hall's Sons**, 223-233 W. 10th St., New York.
- Hollands Mfg. Co.**, Erie, Pa.
- Humphreys Mfg. Co.**, Mansfield, Mass.
- Jarecki Mfg. Co.**, Erie, Pa.
- J. M. King & Co.**, Waterford, N. Y.
- Morse Twist Drill & Machine Co.**, New Bedford, Mass.
- Niles-Bement-Pond Co.**, 136-138 Liberty St., New York.
- Pratt & Whitney Co.**, Hartford, Ct.
- E. F. Beece Co.**, Greenfield, Mass.
- Reliance Machine & Tool Co.**, Cleveland.
- D. Saunders' Sons**, Yonkers, N. Y.
- Standard Engineering Co.**, Ellwood City, Pa.
- Standard Tool Co.**, Cleveland, O.
- Superior Tap Co.**, Springfield, Vt.
- Walworth Mfg. Co.**, Boston, Mass.
- Wells Bros. & Co.**, Greenfield, Mass.
- D. E. Wells & Son**, Greenfield, Mass.
- Wiley & Russell Mfg. Co.**, Greenfield, Mass.
- Winter Bros. Co.**, Wrentham, Mass.
- Stock Waterers**—  
M. J. Bartlett & Son, 196 S. Clark St., Chicago, Ill.
- A. Buch's Sons Co.**, Elizabethtown, Pa.
- S. Cheney & Son**, Manlius, N. Y.
- Chicago Wheel & Mfg. Co.**, 39-45 W. Randolph St., Chicago, Ill.
- L. O. Koven & Bro.**, 50 Cliff St., N. Y.
- Stover Mfg. Co.**, Freeport, Ill.
- Stokers, Mechanical**—  
Babcock & Wilcox Co., 25 Liberty St., New York.
- Alfred Box & Co.**, Front and Poplar Sts., Philadelphia, Pa.
- Cahall Sales Department**, Pittsburgh, Pa.
- Wm. Sellers & Co. Inc.**, Philadelphia.
- Stone Cutters' Chisels**—  
(See Chisels, Brick, Stone Cutters', &c.)
- Stone Dogs**—  
Trow & Holden, Barre, Vt.
- Stone Hoists**—  
James McKay & Co., Pittsburgh, Pa.
- Stone Molding Machines, Planers, Saws, Wire**—  
(See Molding Machines, Planers, Saws, Wire.)
- Stoners, Cherry**—  
Enterprise Mfg. Co., Philadelphia, Pa.
- Goodell Co.**, Antrim, N. H.
- John H. Graham & Co.**, 113 Chambers St., New York.
- Rollman Mfg. Co.**, Mt. Joy, Pa.
- Stoners, Peach**—  
Rollman Mfg. Co., Mt. Joy, Pa.
- Stones, Axe**—  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.
- Cleveland Stone Co.**, Cleveland, O.
- Pike Mfg. Co.**, Pike, N. H.
- Stones, Buhr, Mill**—  
C. O. Bartlett & Snow Co., Cleveland, O.
- Case Mfg. Co.**, Columbus, O.
- Stones, Corundum**—  
American Emery Wheel Works, Providence, R. I.
- Stones, Carriers' and Tanners**—  
Pike Mfg. Co., Pike, N. H.
- Stones, Emery**—  
American Emery Wheel Works, Providence, R. I.
- Bridgeport Safety Emery Wheel Co.**, Bridgeport, Ct.
- Chicago Wheel & Mfg. Co.**, 39-45 W. Randolph St., Chicago, Ill.
- Norton Emery Wheel Co.**, Worcester, Mass.
- Pike Mfg. Co.**, Pike, N. H.
- Vitrified Wheel Co.**, Westfield, Mass.
- Stones, Gold**—  
Pike Mfg. Co., Pike, N. H.
- Stones, Hackler**—  
Pike Mfg. Co., Pike, N. H.

**Stones, India—**

Pike Mfg. Co., Pike, N. H.

**Stones, Oil and Water—**

American Emery Wheel Works, Providence, R. I.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Norton Emery Wheel Co., Worcester, Mass.

Pike Mfg. Co., Pike, N. H.

Vitrified Wheel Co., Westfield, Mass.

**Stones, Razor—**

Chicago Wheel & Mfg. Co., 39 W. Randolph St., Chicago, Ill.

Pike Mfg. Co., Pike, N. H.

**Stones, Rubbing—**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Pike Mfg. Co., Pike, N. H.

**Stones, Scales—**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Cleveland Stone Co., Cleveland, O.

Outaway Harrow Co., Higganum, Ct.

Norton Emery Wheel Co., Worcester, Mass.

Pike Mfg. Co., Pike, N. H.

**Stone Working Machinery—**

Farrel Foundry & Mach. Co., Ansonia, Ct.

Ingersoll-Sergeant Drill Co., 26 Cortlandt St., New York.

F. R. Patch Mfg. Co., Rutland, Vt.

**Stools, Camp—**

Stanley Works, New Britain, Ct.

**Stools, Store—**

(See Store Stools.)

**Stoppers, Bottle—**

Baird Machine Co., Oakville, Ct.

M. J. Bartlett & Son, 146 S. Clark St., Chicago, Ill.

H. O. Canfield, Bridgeport, Ct.

Taplin Mfg. Co., New Britain, Ct.

C. T. Williamson Wire Novelty Co., Newark, N. J.

**Stoppers, Flue—**

J. L. Clark Hardware Co., Rockford, Ill.

**Stoppers, Ladle—**

R. B. Seidel, Inc., 1334 Callowhill St., Philadelphia, Pa.

**Stops, Bend—**

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

**Stops, Bench—**

Millers Falls Co., 28 Warren St., N. Y.

Charles Morrill, 277 Broadway, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Stover Mfg. Co., Freeport, Ill.

Wilcox Mfg. Co., Aurora, Ill.

**Stops, Bench, Combination—**

R. P. Whipple & Co., Springfield, Mass.

**Stops, Door—**

Jos. Bardsley, 147-151 Baxter St., N. Y.

Caldwell Mfg. Co., Rochester, N. Y.

Chapin-Stephens Co., Pine Meadow, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Wilcox Mfg. Co., Aurora, Ill.

C. T. Williamson Wire Novelty Co., Newark, N. J.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Storage Bins, Coal—**

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

**Store Door Shutter Screws—**

(See Screws, Shutter, Store Door.)

**Store Fixture Brackets, Ladders, Trucks—**

(See Brackets, Ladders, Trucks.)

**Store Fixtures, Display—**

McKenna Bros. Brass Co., Pittsburgh, Pa.

**Store Fixtures, Wire—**

Fred J. Meyers Mfg. Co., Hamilton, O.

W. S. Tyler Co., Cleveland, O.

**Store Stools—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Fred J. Meyers Mfg. Co., Hamilton, O.

**Storm Sash Hangers, &c.—**

(See Hangers, &c.)

**Storm Window Fasteners—**

(See Fasteners, Storm Window.)

**Stove Blanks—**

Mathiessen & Hegeler Zinc Co., La Salle, Ill.

**Stove Bolts—**

(See Bolts.)

**Stove Display Racks—**

R. W. Whitehurst & Co., Norfolk, Va.

**Stove Door Handles—**

(See Trimmings, Stove.)

**Stove Fixtures, Display—**

McKenna Bros. Brass Co., Pittsburgh, Pa.

**Stove Pipe—**

(See Pipe, Stove.)

**Stove Pine Elbows—**

(See Elbows, Stove Pipe.)

**Stove Pipe Registers, Shelves, &c.—**

(See Registers, Shelves, &c.)

**Stove Repairs, Extension Grates, Backs, &c.—**

Adams Co., Dubuque, Ia.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Stoves and Ranges, Gas, Gasoline and Oil—**

Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Ferno Co., Brooklyn, N. Y.

Hollands Mfg. Co., Erie, Pa.

S. M. Howes Co., Boston, Mass.

Novelty Mfg. Co., Jackson, Mich.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Taylor & Boggis Foundry Co., Cleveland, O.

**Stoves, Coal and Wood—**

S. Cheney & Son, Manlius, N. Y.

**Stoves, Fire Brick—**

Julian Kennedy, Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh.

**Stoves, Gas, Laundry—**

Wm. M. Crane Co., 1131 Broadway, N. Y.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

**Stoves, Lamp Chimney—**

(See Heaters, Lamp Chimney.)

**Stoves, Oil Lamp—**

Fanner Mfg. Co., Cleveland, O.

Federal Mfg. Co., Cleveland, O.

Flume & Atwood Mfg. Co., Westbury, Ct.

Taylor & Boggis Fds. Co., Cleveland, O.

**Stoves, Plasterers'—**

Thos. Carlin's Sons, Allegheny, Pa.

**Stoves, Tailors'—**Wm. M. Crane Co., 1131 Broadway, N. Y.  
Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.**Stoves, Tailors' Gas—**

Schneider &amp; Trenkamp Div., Am. Stove Co., Cleveland, O.

**Stoves, Wood and Coal—**

Chattanooga Car &amp; Foundry Co., Chattanooga, Tenn.

Chattanooga Roofing &amp; Foundry Co., Chattanooga, Tenn.

Hess-Snyder Co., Massillon, O.

S. M. Howes Co., Boston, Mass.

Star Shovel &amp; Range Co., Vincennes, Ind.

**Straight Edges—**

(See Edges, Straight.)

**Straightening and Cutting Machines, Automatic Wire—**

Franklin Mfg. Co., New Haven, Ct.

**Straightening and Cutting Machines, Sheet Metal—**

F. B. Shuster Co., New Haven, Ct.

**Straightening and Cutting Machines, Strip Metal—**

American Tube &amp; Stamping Co., Bridgeport, Ct.

Niagara Machine &amp; Tool Co., Buffalo, N. Y.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

**Straightening and Cutting Machines, Wire—**

Baird Machine Co., Oakville, Ct.

Blake &amp; Johnson, Waterbury, Ct.

Chandler &amp; Farquhar, Boston, Mass.

Elliott &amp; Reid Co., Richmond, Ind.

Franklin Mfg. Co., New Haven, Ct.

Hoefler Mfg. Co., Freeport, Ill.

E. J. Manville Mach. Co., Waterbury, Ct.

A. H. Nilson Machine Co., Bridgeport, Ct.

F. B. Shuster Co., New Haven, Ct.

Waterbury Machine Co., Waterbury, Ct.

**MERCHANTS.**

Brown-Wales Co., Boston, Mass.

S. Obermayer Co., Cincinnati, O.

Turner, Vaughn &amp; Taylor Co., Cuyahoga Falls, O.

**Straightening Centers and Presses, Bench—**

Springfield Machine Tool Co., Springfield, Mass.

**Straightening Machinery, Plate—**

Cincinnati Punch &amp; Shear Co., Cincinnati, O.

Cleveland Punch &amp; Shear Works Co., Cleveland, O.

Diamond Drill &amp; Machine Co., Birdsboro, Pa.

Falkenau-Sinclair Mach. Co., 109 N. 22d St., Philadelphia, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.

Hilles &amp; Jones Co., Wilmington, Del.

E. J. Manville Machine Co., Waterbury, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Peck, Stow &amp; Wilcox Co., 27 Murray St., New York.

Philadelphia Roll &amp; Machine Co., 23d St. &amp; Washington Ave., Philadelphia.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Wm. Sellers &amp; Co. (Inc.), Philadelphia, Pa.

Standard Machinery Co., Providence, R. I.

Waterbury Farrel Foundry &amp; Machine Co., Waterbury, Ct.

Wellman-Seaver-Morgan Co., Cleveland, O.

Williams, White &amp; Co., Moline, Ill.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson &amp; Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Straightening Machines, Angle, Beam and Channel—**

Cleveland Punch &amp; Shear Works Co., Cleveland, O.

Diamond Drill &amp; Machine Co., Birdsboro, Pa.

A. Garrison Foundry Co., Pittsburgh, Pa.

Hilles &amp; Jones Co., Wilmington, Del.

Philadelphia Roll &amp; Machine Co., 23d St. &amp; Washington Ave., Philadelphia, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

United Engineering &amp; Foundry Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Williams, White &amp; Co., Moline, Ill.

**MERCHANTS.**

Fairbanks Co., 416 Broome St., New York.

Joseph T. Ryerson &amp; Son, 18-22 Milwaukee Ave., Chicago, Ill.

**Straightening Machines, Pipe—**

Fischer Foundry &amp; Machine Co., Pittsburgh, Pa.

Taylor, Wilson &amp; Co., Ltd., Allegheny, Pa.

**Straightening Machines, Shaft—**

(See Shaft Straightening Machinery.)

**Straightening Presses, Axle—**

Watson-Stillman Co., 204-210 East 43d St., New York.

Wells Bros. &amp; Co., Greenfield, Mass.

**Straightening Rolls—**

(See Rolls, Bending and Straightening.)

**Strainers—**

(See Kitchen Articles, Wire.)

**Strainers, Conductor Pipe—**

Burger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.

Canton Steel Roofing Co., Canton, O.

Clark, Quien &amp; Morse, Peoria, Ill.

Edward Darby &amp; Sons, 233-235 Arch St., Philadelphia, Pa.

Garry Iron &amp; Steel Co., Cleveland, O.

Gilbert &amp; Bennett Mfg. Co., 277 Broadway, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Parker Wire Goods Co., Worcester, Mass.

Western Wire Goods Co., Buffalo, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Strainers, Dredge and Sifter Combined—**

J. L. Clark Hardware Co., Rockford, Ill.

**Strainers, Pipe—**

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

**Strainers, Sink—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Parker Wire Goods Co., Worcester, Mass.

Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.  
**Strainers, Suction, Globe, &c.**  
Edson Mfg. Co., Boston, Mass.  
**Strainers, Tea and Coffee—**  
(See Household Articles, Wire.)  
**Strainers, Tea, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.  
**Strainers, Tube Well—**  
A. D. Cook, Lawrenceburg, Ind.  
**Strap and T Hinges—**  
(See Hinges, Strap and T.)  
**Strapping and Buffing Machines—**  
(See Buffing and Polishing Machines.)  
**Straps, Anchor—**  
(See Telegraph and Telephone.)  
**Straps, Baggage Check—**  
American Railway Supply Co., 24 Park Place, New York.  
**Straps, Blanket—**  
Covert's Saddlery Works, Farmer, N. Y.  
**Straps, Box—**  
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.  
**Straps, Curtain—**  
Covert's Saddlery Works, Farmer, N. Y.  
McKinnon Dash Co., Buffalo, N. Y.  
**Straps, Gas Pipe—**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.  
**Straps, Hame—**  
Covert's Saddlery Works, Farmer, N. Y.  
**Straps, Sleigh Bell—**  
Berlin Bros. Mfg. Co., Easthampton, Ct.  
**Strap Work—**  
(See Harness and Strap Work.)  
**Straw Knives—**  
(See Knives, Hay and Straw.)  
**Street Forks—**  
(See Forks, Hay, Manure, Spading, &c.)  
**Street Lamps, Scrapers—**  
(See Lamps, Scrapers.)  
**Stretchers, Box Strap—**  
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.  
**Stretchers, Carpet—**  
Holliday Mfg. & Engineering Co., 160 Bunker St., Chicago, Ill.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.  
Sargent & Co., 151 Leonard St., N. Y.  
**Stretchers, Fence and Wire—**  
Arcade Mfg. Co., Freeport, Ill.  
De Kalb Fence Co., De Kalb, Ill.  
Elliott & Reid Co., Richmond, Ind.  
W. C. Heller & Co., Montclair, N. J.  
Holliday Mfg. & Engineering Co., 160 Bunker St., Chicago, Ill.  
International Fence & Fireproofing Co., Columbus, O.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Majestic Wire Fence Co., Detroit, Mich.  
Ney Mfg. Co., Canton, O.  
Pullman Mfg. Co., Rochester, N. Y.  
Smith & Hemenway Co., 236 Broadway, New York.  
Stowell Mfg. & Foundry Co., So. Milwaukee, Wis.  
Willcox Mfg. Co., Aurora, Ill.  
**Stretchers, Saw—**  
(See Rods, Saw.)

**Stretchers, Trousers—**  
Covert Mfg. Co., West Troy, N. Y.  
Wire Goods Co., Worcester, Mass.  
**Strikers, Lock and Latch—**  
(See Locks, Latches, &c.)  
**Stringers, Fish—**  
Onesida Community, Kenwood, N. Y.  
**Strips, Metallic Decorative—**  
Wagner Mfg. Co., Cedar Falls, Ia.  
**Strip Steel, Cold Rolled—**  
(See Steel, Cold Rolled Strip.)  
**Stroppers, Ladle—**  
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.  
**Stropping Machines, Razor—**  
A. L. Silberstein, 459-461 Broadway, N. Y.  
**Strops, Razor—**  
Pike Mfg. Co., Pike, N. H.  
A. L. Silberstein, 459-461 Broadway, N. Y.  
Smith & Hemenway Co., 236 Broadway, New York.  
**Structural Iron Erectors—**  
Peterson, Seburn & Co., Cleveland, Pa.  
**Structural Iron Work—**  
Cooper-Wigand-Cooke Co., 152-154 W. 34th St., New York.  
Meehan Boiler & Construction Co., Lowellville, O.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
West Side Foundry Co., Troy, N. Y.  
**Structural Material—**  
Allentown Rolling Mills, Allentown, Pa.  
American Bridge Co., 100 Broadway, New York.  
Berlin Construction Co., Berlin, Ct.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.  
Cooper-Wigand-Cooke Co., 152-154 W. 34th St., New York.  
Donovan Wire & Iron Co., Toledo, O.  
Forest City Steel & Iron Co., Cleveland.  
Garry Iron & Steel Co., Cleveland, O.  
Jones & Laughlin Steel Co., Pittsburgh.  
W. N. Kratzer & Co., Pittsburgh, Pa.  
McClintic - Marshall Construction Co., Pittsburgh, Pa.  
Narazeth Foundry & Machine Co., Narazeth, Pa.  
Norem Engineering Works, Detroit, Mich.  
Passaic Steel Co., Paterson, N. J.  
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.  
Republic Iron & Steel Co., Stock Exchange Building, Chicago, Ill.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
South Pittsburgh Iron Works, Claysville, Pa.  
**West Virginia Bridge & Construction Co.**  
Wheeling, W. Va.  
**MERCHANTS.**  
Bassett-Prealey Co., Cleveland, O.  
Boston Bridge Works, Boston, Mass.  
Bourne-Fuller Co., Cleveland, O.  
John Eichleay, Jr., Co., Pittsburgh, Pa.  
C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.  
James Lee & Co., 76 William St., N. Y.  
Minneapolis Steel & Machinery Co., Minneapolis, Minn.  
John B. Newkirk & Co., 15th and Market Sts., Philadelphia, Pa.  
Pierson & Co., 2 Broadway, New York.



- Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.  
 Wm. H. Wallace & Co., 66 Broadway, New York.  
 Mason G. Worth & Co., Real Estate Trust Building, Philadelphia, Pa.
- Stubs and Plates, Store Shutter—**  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Reading Hardware Co., Reading, Pa.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.
- Stud Bolts, Chains—**  
 (See Bolts, Chains.)
- Studs, Brass and Iron—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 Atlantic Machine Screw Co., Boston, Mass.  
 Automatic Machine Co., Greenfield, Mass.  
 Blake & Johnson, Waterbury, Ct.  
 Chicago Screw Co., 2 No. Canal St., Chicago, Ill.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Illinois Screw Co., 20 So. Canal St., Chicago, Ill.  
 Thomas A. Mack Mfg. Co., Jersey City, N. J.  
 New Britain Hardware Mfg. Co., New Britain, Ct.  
 Niagara Screw Co., Buffalo, N. Y.  
 Pittsburgh Screw & Bolt Co., Pittsburgh.  
 Walker & Ehrman Mfg. Co., 127 W. Washington St., Chicago, Ill.
- Studs, Dog Collar and Bag—**  
 R. C. Jenkinson & Co., Newark, N. J.
- Studs, Harness—**  
 R. C. Jenkinson & Co., Newark, N. J.  
 Wire Goods Co., Worcester, Mass.
- Stuffers, Sausage—**  
 Enterprise Mfg. Co., Philadelphia, Pa.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Silver Mfg. Co., Salem, O.
- Stump Joints—**  
 (See Joints, Stump.)
- Suction Faucets—**  
 (See Faucets, Suction.)
- Suction Strainers—**  
 (See Strainers, Suction, Globe, &c.)
- Sugar Arches—**  
 Warsaw Elevator Co., Warsaw, N. Y.
- Sugar House Machinery—**  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Buffalo Forge Co., Buffalo, N. Y.  
 J. B. & J. M. Cornell, 239 11th Ave., New York.  
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.  
 Dimmick Pipe Co., Birmingham, Ala.  
 Farrel Foundry & Machine Co., Ansonia, Ct.  
 P. Hollingsworth Morris, 1501 S. Front St., Philadelphia, Pa.  
 Niles Cement-Pond Co., 136-138 Liberty St., New York.  
 E. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Sugar Houses, Complete—**  
 J. B. & J. M. Cornell, 239 11th Ave., New York.
- Sulphuric Acid—**  
 (See Acid, Sulphuric.)
- Summer Front and Grate Frames—**  
 (See Front Frames and Summer Fronts.)
- Summer Houses—**  
 (See Houses, Wire, Summer.)
- Superheaters, Steam—**  
 Babcock & Wilcox Co., 83 Liberty St., New York.  
 Power Specialty Co., 126 Liberty St., New York.
- Supplies, Architects' and Artists'—**  
 Keuffel & Esser Co., 127 Fulton St., N. Y.
- Supplies, Foundry, Mill, &c.—**  
 (See Foundry and Mill Supplies.)
- Supplies, Grinders' and Polishers'—**  
 (See Grinders' and Polishers' Supplies.)
- Supplies, Tube, Well—**  
 (See Well, Tube, Supplies.)
- Supply Pipes—**  
 (See Pipes, Flush and Supply.)
- Supports and Bars, Hammock—**  
 I. E. Palmer, Middletown, Ct.
- Supports and Bolts, Sash—**  
 Smith & Egge Mfg. Co., Bridgeport, Ct.
- Supports, Ankle Skate—**  
 Barney & Berry, Springfield, Mass.
- Supports, Counter—**  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.  
 Fred J. Meyers Mfg. Co., Hamilton, O.
- Supports, Foot Rail—**  
 John C. Kupferle, St. Louis, Mo.
- Supports, Desk Lid—**  
 Hardware Supply Co., Grand Rapids, Mich.
- Supports, Porch—**  
 Columbia Grey Iron Co., Columbia, Pa.  
 John C. Kupferle, St. Louis, Mo.  
 Plunger & Henger Mfg. Co., St. Louis.  
 Reading Hardware Co., Reading, Pa.  
 Susquehanna Castings Co., Wrightsville, Pa.  
 A. C. Williams, Ravenna, O.  
 Wrightsville Hardware Co., Wrightsville, Pa.
- Supports, Shelf—**  
 (See Pins, Shelf.)
- Supports, Table Leaf—**  
 Sargent & Co., 151 Leonard St., N. Y.
- Surface Grinders—**  
 (See Grinders, Surface.)
- Surface Plates, Standard—**  
 Brown & Sharpe Mfg. Co., Providence, R. I.  
 Gould & Eberhardt, Newark, N. J.
- Surfaces, Wood—**  
 Lane Mfg. Co., Montpelier, Vt.
- Swage Blocks—**  
 (See Blocks, Swage.)
- Swages, Saw Tooth—**  
 E. C. Atkins & Co., Indianapolis, Ind.  
 Henry Diston & Sons, Philadelphia, Pa.  
 National Saw Co., Newark, N. J.  
 Simonds Mfg. Co., Fitchburg, Mass.

**Swaging Machines—**  
American Tube & Stamping Co., Bridge-

port, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
Excelsior Needle Co., Torrington, Ct.  
Chas. Lefrier & Co., Brooklyn, N. Y.  
Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York  
Standard Machinery Co., Providence, R. I.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.  
Waterbury Machine Co., Waterbury, Ct.

Williams, White & Co., Moline, Ill.

**Swedish Iron and Steel—**  
(See Iron and Steel, Swedish.)

**Sweepers, Carpet—**  
National Sweeper Co., Marion, Ind.

**Sweepers, Lawn—**  
Philadelphia Lawn Mower Co., 3100-3109

Chestnut St., Philadelphia, Pa.

**Sweepers, Street Railroad—**  
Taunton Locomotive Mfg. Co., Taunton,

Mass.

**Sweeping Brushes—**  
(See Brushes, Whitewash, Horse, &c.)

**Sweeping Machines, Street—**  
Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Edson Mfg. Co., Boston, Mass.

**Swings, Barrel—**  
Sargent & Co., 151 Leonard St., N. Y.

**Swings, Lawn—**  
A. Buch's Sons Co., Elizabethtown, Pa.

Fairfield Lawn Swing Co., Brunswick, Me.

F. E. Myers & Bro., Ashland, O.

**Switchboards—**  
General Electric Co., Schenectady, N. Y.

Helios-Upton Co., Peabody, Mass.

McKenna Bros. Brass Co., Pittsburgh.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Zucker & Levett & Loeb Co., 526-530 West

25th St., New York.

**Switches and Frogs, Rail-**  
**Road—**

Allentown Rolling Mills, Allentown, Pa.

Atlas Car & Mfg. Co., Cleveland, O.

Barbour-Stockwell Co., Cambridgeport,

Mass.

Thos. Carlin's Sons, Allegheny, Pa.

Arthur Koppel, 66 Broad St., N. Y.

Henry Lewis & Co., 26 S. 15th St., Phila-

delphia, Pa.

May & Spaulding, Atlanta, Ga.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.

Richardson & Co., Inc., Pittsburgh, Pa.

Walter A. Zelnicker Supply Co., St.

Louis, Mo.

**Switching Ropes—**  
(See Ropes, Locomotive Switching.)

**Switch Stands—**  
American Valve & Meter Co., Cincin-

nati, O.

**Swivel Forging Machines.**

**Chain—**  
Turner, Vaughn & Taylor Co., Ouyahoga

Falls, O.

**Swivels, Chain—**  
Bradlee & Co., Beach St. and E. Susque-

hanna Ave., Philadelphia, Pa.

Keystone Drop Forge Works, Chester, Pa.

Onelda Community, Kenwood, N. Y.  
Wire Goods Co., Worcester, Mass.

**Swivels, Halter, Harness.**

&c.—  
(See Snaps and Swivels, Halter, Harness,

&c.)

**Swivels, Rope—**  
Keystone Drop Forge Works, Chester, Pa.

A. Leschen & Sons Rope Co., St. Louis.

W. & J. Tiebout, 118 Chambers St.,

New York.

**Syrup Pitchers—**  
(See Pitchers, Silver Plated.)

**Table Brackets, Cutlery.**

&c.—  
(See Brackets, Cutlery, &c.)

**Tables, Drafting—**  
Kenuff & Esser Co., 127 Fulton St., N. Y.

R. E. Kidder, Worcester, Mass.

Washburn Shops, Worcester, Mass.

**Tables, Folding—**  
Fairfield Lawn Swing Co., Brunswick, Me.

Maine Mfg. Co., Nashua, N. H.

**Tables, Ironing—**  
Hill Dryer Co., Worcester, Mass.

**Tables, Locomotive Trans-**  
**fer—**  
(See Transfer Tables, Locomotive.)

**Tables, Lunch Bar—**  
Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

**Tables, Saw—**  
Kimball Bros. & Sprague, Brockton,

Mass.

**Tables, Steam—**  
J. A. Taggart, Toledo, O.

**Tables, Transfer—**  
(See Transfer Tables, Locomotive.)

**Tablets, Bronze—**  
Glen Mfg. Co., Ellwood City, Pa.

Murdock Corporation, Boston, Mass.

New York Lock Co., Branford, Ct.

**Tachometers—**  
(See Indicators, Speed.)

**Tack Claws, Hammers, Pull-**  
**ers—**  
(See Claws, Hammers, Pullers.)

**Tackle Blocks, Pulleys.**

&c.—  
(See Blocks, Pulleys, &c.)

**Tackle, Fishing—**  
Clark Horrocks Co., Utica, N. Y.

**Tack Machinery—**  
Blake & Johnson, Waterbury, Ct.

Kimball Bros. & Sprague, Brockton,

Mass.

H. J. Miller's Sons, Bridgewater, Mass.

Henry Perkins Co., Bridgewater, Mass.

F. B. Shuster Co., New Haven, Ct.

**Tacks and Nails, Shoe—**  
Cobb & Drew, Plymouth, Mass.

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Cross-

ing, Ill.

H. J. Miller's Sons, Bridgewater, Mass.

E. Phillips & Sons, South Hanover,

Mass.

Plymouth Mills, Plymouth, Mass.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Derby, Ct.

**Tacks and Nails, Zinc—**  
Cobb & Drew, Plymouth, Mass.

- Grand Crossing Tack Co., Grand Crossing, Ill.  
 E. Phillips & Sons, South Hanover, Mass.
- Tacks, Bill Poster and Railroad—**  
 Globe Mfg. Co., Taunton, Mass.
- Tacks, Box, Basket, &c.—**  
 Globe Mfg. Co., Taunton, Mass.  
 Grand Crossing Tack Co., Grand Crossing, Ill.  
 E. Phillips & Sons, South Hanover, Mass.
- Tacks, Brads, Finishing Nails, &c.—**  
 Cobb & Drew, Plymouth, Mass.  
 Globe Mfg. Co., Taunton, Mass.  
 Grand Crossing Tack Co., Grand Crossing, Ill.  
 H. J. Miller's Sons, Bridgewater, Mass.  
 Morgan Spring Co., Worcester, Mass.  
 E. Phillips & Sons, South Hanover, Mass.
- Tacks, Brads, Finishing Nails, &c.—**  
 Plymouth Mills, Plymouth, Mass.  
 Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
 Shelton Co., Derby, Ct.  
 Wire Goods Co., Worcester, Mass.
- Tacks, Bronze—**  
 Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Tacks, Copper—**  
 (See Nails and Tacks, Copper.)
- Tacks, Double-Pointed—**  
 Cobb & Drew, Plymouth, Mass.  
 Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.  
 Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Iron—**  
 Parker Wire Goods Co., Worcester, Mass.  
 Plymouth Mills, Plymouth, Mass.  
 Reading Screw Co., Norristown, Pa.  
 Sargent & Co., 151 Leonard St., N. Y.  
 E. H. Titchener & Co., Binghamton, N. Y.
- Tacks, Iron—**  
 Western Wire Goods Co., Buffalo, N. Y.  
 Wire Goods Co., Worcester, Mass.  
 Wright Wire Co., Worcester, Mass.
- Tacks, Miners'—**  
 Ripley & Bartlett, Plymouth, Mass.
- Tacks, Rubber Head—**  
 H. O. Canfield, Bridgewater, Ct.  
 Elastic Tip Co., Boston, Mass.
- Tacks, Thumb—**  
 Keuffel & Esser Co., 127 Fulton St., N. Y.  
 C. T. Williamson Wire Novelty Co., Newark, N. J.
- Tacks, Trimmers'—**  
 Grand Crossing Tack Co., Grand Crossing, Ill.  
 E. Phillips & Sons, South Hanover, Mass.
- Tacks, Upholsterers', Gimp and Lace—**  
 Cobb & Drew, Plymouth, Mass.  
 Globe Mfg. Co., Taunton, Mass.  
 Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Upholsterers', Gimp and Lace—**  
 E. Phillips & Sons, South Hanover, Mass.
- Plymouth Mills, Plymouth, Mass.**  
**Ripley & Bartlett, Plymouth, Mass.**  
**Shelton Co., Derby, Ct.**
- Tack Wire—**  
 (See Wire, Tack.)
- Tag Fasteners—**  
 (See Fasteners, Tag.)
- Tags, Brass—**  
 Crowe Metal Mfg. Co., 71 W. Jackson Blvd., Chicago, Ill.  
 Waterbury Brass Co., Waterbury, Ct.
- Tags, Coupon Shop—**  
 American Mfg. Co., Battle Creek, Mich.
- Tags, Duplicate Copying—**  
 American Mfg. Co., Battle Creek, Mich.
- Tags, Shipping—**  
 American Mfg. Co., Battle Creek, Mich.
- Tag Tying Machines, Merchandise—**  
 Climax Tag Co., Dayton, O.
- Tail Combs—**  
 (See Combs, Mane and Tail.)
- Tallow Pots—**  
 (See Pots.)
- Tank Governors, &c.—**  
 (See Governors, &c.)
- Tanks, Automobile—**  
 Fedders Mfg. Co., Buffalo, N. Y.  
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
- Tanks, Blow Off—**  
 (See Blow Off Tanks.)
- Tanks, Chemical Proof—**  
 Zucker & Levett & Loeb Co., 525-530 W. 25th St., New York.
- Tanks, Cold Drawn Steel—**  
 Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.
- Tanks, Copper Stove—**  
 Rome Mfg. Co., Rome, N. Y.
- Tanks, Dipping, Steel—**  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Tanks, Expansion and Anti-Expansion—**  
 L. O. Koven & Bro., 50 Cliff St., N. Y.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Tanks, Factory—**  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.  
 W. E. Caldwell Co., Louisville, Ky.  
 Clarendon Boiler Works, No. Clarendon, Pa.
- Tanks, Factory—**  
 W. J. Clark Co., Salem, O.  
 E. Keeler Co., Williamsport, Pa.  
 Benj. F. Kelley & Son, 91 Liberty St., New York.
- Tanks, Factory—**  
 L. O. Koven & Bro., 50 Cliff St., N. Y.  
 Meehan Boiler & Construction Co., Lowellville, O.
- Tanks, Factory—**  
 Wm. B. Pollock Co., Youngstown, O.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Southern Engine & Boiler Works, Jackson, Tenn.  
 Struthers-Wells Co., Warren, Pa.

Vilter Mfg. Co., Milwaukee, Wis.

Wickes Bros., Saginaw, Mich.

**Tanks, Factory Dispensing—**  
Delphos Can Co., Delphos, O.

**Tanks, Galvanized Iron—**

W. E. Caldwell Co., Louisville, Ky.

**Tanks, Gas, Air, Soda**

**Water, &c.—**

Acorn Brass Mfg. Co., 206 Fulton St.,

Chicago, Ill.

Avery Stamping Co., Cleveland, O.

Clarendon Boiler Works, No. Clarendon,

Pa.

Janney, Steinmetz & Co., Philadelphia.

E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Low-

ellville, O.

Pennsylvania Engineering Works, New

Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.

Pressed Steel Tank Co., Milwaukee, Wis.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee

Ave., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

White Mfg. Co., 93 Michigan Ave., Chi-

cago, Ill.

Wickes Bros., Saginaw, Mich.

**Tanks, Gasoline Storage—**

S. F. Bowser & Co., Ft. Wayne, Ind.

**Tanks, Grain—**

Wm. B. Scaife & Sons Co., Pittsburgh,

**Tanks, Hot Water—**

Wm. B. Scaife & Sons, Pittsburgh, Pa.

**Tanks, Oil—**

S. F. Bowser & Co., Ft. Wayne, Ind.

Clarendon Boiler Works, No. Clarendon,

Pa.

Fedders Mfg. Co., Buffalo, N. Y.

E. Keeler Co., Williamsport, Pa.

L. O. Koven & Bro., 50 Cliff St., N. Y.

Pennsylvania Engineering Works, New

Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Sidney Shepard & Co., Buffalo, N. Y.

Struthers, Wells & Co., Warren, Pa.

**Tanks, Self Measuring Oil**

**and Varnish—**

Acorn Brass Mfg. Co., 206 Fulton St.,

Chicago, Ill.

S. F. Bowser & Co., Ft. Wayne, Ind.

**Tanks, Stock and Wind**

**Mill, Steel—**

A. Buch's Co., Elizabethtown, Pa.

W. E. Caldwell Co., Louisville, Ky.

Flint & Walling Mfg. Co., Kendallville,

Ind.

E. Keeler Co., Williamsport, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Southern Engine & Boiler Works, Jack-

son,

Struthers-Wells Co., Warren, Pa.

Vilter Mfg. Co., Milwaukee, Wis.

**Tanks, Stock and Wind**

**Mill, Wood—**

Flint & Walling Mfg. Co., Kendallville,

Ind.

Stover Mfg. Co., Freeport, Ill.

R. W. Whitehurst Co., Norfolk, Va.

**Tanks, Stove—**

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Tanks, Wagon, Steel—**

Wm. B. Scaife & Sons Co., Pittsburgh,

Pa.

Wickes Bros., Saginaw, Mich.

**Tank Work—**

Broomell, Schmidt & Steacy Co., York,

Pa.

W. E. Caldwell Co., Louisville, Ky.

Clarendon Boiler Works, No. Clarendon,

Pa.

Forest City Steel & Iron Co., Cleveland.

E. Keeler Co., Williamsport, Pa.

L. O. Koven & Bro., 50 Cliff St., N. Y.

Meehan Boiler & Construction Co., Low-

ellville, O.

Northern Engineering Works, Detroit

Mich.

Pennsylvania Engineering Works, New

Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Struthers, Wells Co., Warren, Pa.

Weber Gas & Gasoline Engine Co., Kan-

sas City, Mo.

West Virginia Bridge & Construction Co.,

Wheeling, W. Va.

Robert Wetherill & Co., Chester, Pa.

Wickes Bros., Saginaw, Mich.

**Tannery Machinery—**

Geo. V. Cresson Co., 18th St. and Alle-

gheny Ave., Philadelphia, Pa.

Struthers, Wells Co., Warren, Pa.

**Tap Bolts, Drills, &c.—**

(See Bolts, Drills, Tap, &c.)

**Tape Measures—**

(See Measures, Tape.)

**Taper Rolling Machine—**

Williams, White & Co., Moline, Ill.

**Taper Threading Ma-**

**chines—**

Acme Machinery Co., Cleveland, O.

Webster & Perks Tool Co., Springfield, O.

**Tapping and Reaming Ma-**

**chines, Pneumatic—**

Philadelphia Pneumatic Tool Co., 1038

Ridge Ave., Philadelphia, Pa.

**Tapping and Reaming Ma-**

**chines, Portable—**

Chicago Flexible Shaft Co., 124 La Salle

Ave., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

**Tapping Attachments, Auto-**

**matic—**

Gould & Eberhardt, Newark, N. J.

**Tapping Machines—**

Acme Machinery Co., Cleveland, O.

American Tool Works Co., Cincinnati, O.

Baker Bros., Toledo, O.

H. B. Brown & Co., East Hampton, Ct.

Cincinnati Machine Tool Co., Cincinnati.

Exeter Machine Works, Exeter, N. H.

Garvin Machine Co., Spring and Varick

Sts., New York.

Gould & Eberhardt, Newark, N. J.

Grant Mfg. & Machine Co., Bridgeport,

Ct.

Hayden-Roth-Evans Co., Cincinnati, O.

Harvey Hubbell, Bridgeport, Ct.

E. J. Manville Machine Co., Waterbury,

Ct.

Grand Crossing Tack Co., Grand Crossing, Ill.  
E. Phillips & Sons, South Hanover, Mass.

**Tacks, Bill Poster and Railroad—**

Globe Mfg. Co., Taunton, Mass.  
**Tacks, Box, Basket, &c.—**  
Globe Mfg. Co., Taunton, Mass.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.

**Tacks, Brads, Finishing Nails, &c.—**

Cobb & Drew, Plymouth, Mass.  
Globe Mfg. Co., Taunton, Mass.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
H. J. Miller's Sons, Bridgewater, Mass.  
Morgan Spring Co., Worcester, Mass.  
E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Shelton Co., Derby, Ct.  
Wire Goods Co., Worcester, Mass.

**Tacks, Bronze—**  
Phosphor Bronze Smelting Co., 220 Washington Ave., Philadelphia, Pa.

**Tacks, Copper—**  
(See Nails and Tacks, Copper.)

**Tacks, Double-Pointed—**

Cobb & Drew, Plymouth, Mass.  
Wm. D. Gibson Co., 23-27 No. Clinton St., Chicago, Ill.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
Parker Wire Goods Co., Worcester, Mass.  
Plymouth Mills, Plymouth, Mass.  
Reading Screw Co., Norristown, Pa.  
Sargent & Co., 15 Leonard St., N. Y.  
E. H. Titchener & Co., Binghamton, N. Y.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.

**Tacks, Miners'—**  
Ripley & Bartlett, Plymouth, Mass.

**Tacks, Rubber Head—**  
H. O. Canfield, Bridgeport, Ct.  
Elastic Tip Co., Boston, Mass.

**Tacks, Thumb—**

Keuffel & Esser Co., 127 Fulton St., N. Y.  
C. T. Williamson Wire Novelty Co., Newark, N. J.

**Tacks, Trimmers'—**  
Grand Crossing Tack Co., Grand Crossing, Ill.

E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.  
Shelton Co., Derby, Ct.

**Tacks, Upholsterers', Gimp and Lace—**

Cobb & Drew, Plymouth, Mass.  
Globe Mfg. Co., Taunton, Mass.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
E. Phillips & Sons, South Hanover, Mass.

Plymouth Mills, Plymouth, Mass.  
Ripley & Bartlett, Plymouth, Mass.  
Shelton Co., Derby, Ct.

**Tack Wire—**  
(See Wire, Tack.)

**Tag Fasteners—**  
(See Fasteners, Tag.)

**Tags, Brass—**  
Crowe Metal Mfg. Co., 71 W. Jackson Blvd., Chicago, Ill.

Waterbury Brass Co., Waterbury, Ct.

**Tags, Coupon Shop—**  
American Mfg. Co., Battle Creek, Mich.

**Tags, Duplicate Copying—**  
American Mfg. Co., Battle Creek, Mich.

**Tags, Shipping—**  
American Mfg. Co., Battle Creek, Mich.

**Tag Tying Machines, Merchandise—**

Climax Tag Co., Dayton, O.

**Tail Combs—**

(See Combs, Mane and Tail.)

**Tallow Pots—**

(See Pots.)

**Tank Governors, &c.—**

(See Governors, &c.)

**Tanks, Automobile—**

Fedders Mfg. Co., Buffalo, N. Y.  
Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

**Tanks, Blow Off—**

(See Blow Off-Tanks.)

**Tanks, Chemical Proof—**

Zucker & Levett & Loeb Co., 525-530 W. 25th St., New York.

**Tanks, Cold Drawn Steel—**

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

**Tanks, Copper Stove—**

Rome Mfg. Co., Rome, N. Y.

**Tanks, Dipping, Steel—**

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Tanks, Expansion and Anti-Expansion—**

L. O. Koven & Bro., 50 Cliff St., N. Y.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Tanks, Factory—**

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

W. E. Caldwell Co., Louisville, Ky.  
Clarendon Boiler Works, No. Clarendon, Pa.

W. J. Clark Co., Salem, O.  
E. Keeler Co., Williamsport, Pa.

Benj. F. Kelley & Son, 91 Liberty St., New York.

L. O. Koven & Bro., 50 Cliff St., N. Y.  
Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Pollock Co., Youngstown, O.  
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Southern Engine & Boiler Works, Jackson, Tenn.

Struthers-Wells Co., Warren, Pa.

Vilter Mfg. Co., Milwaukee, Wis.  
 Wickes Bros., Saginaw, Mich.  
**Tanks, Factory Dispensing—**  
 Delphos Can Co., Delphos, O.

**Tanks, Galvanized Iron—**  
 W. E. Caldwell Co., Louisville, Ky.

**Tanks, Gas, Air, Soda**  
**Water, &c.—**  
 Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

Avery Stamping Co., Cleveland, O.  
 Clarendon Boiler Works, No. Clarendon, Pa.

Janner, Steinmetz & Co., Philadelphia.  
 E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Lowellville, O.  
 Pennsylvania Engineering Works, New Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.  
 Pressed Steel Tank Co., Milwaukee, Wis.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Tudor Boiler Mfg. Co., Cincinnati, O.

White Mfg. Co., 33 Michigan Ave., Chicago, Ill.  
 Wickes Bros., Saginaw, Mich.

**Tanks, Gasoline Storage—**  
 S. F. Bowser & Co., Ft. Wayne, Ind.

**Tanks, Grain—**  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Tanks, Hot Water—**  
 Wm. B. Scaife & Sons, Pittsburgh, Pa.

**Tanks, Oil—**  
 S. F. Bowser & Co., Ft. Wayne, Ind.

Clarendon Boiler Works, No. Clarendon, Pa.  
 Fedders Mfg. Co., Buffalo, N. Y.

E. Keeler Co., Williamsport, Pa.  
 L. O. Koven & Bro., 50 Cliff St., N. Y.

Pennsylvania Engineering Works, New Castle, Pa.  
 Wm. B. Pollock Co., Youngstown, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Sidney Shepard & Co., Buffalo, N. Y.  
 Struthers, Wells & Co., Warren, Pa.

**Tanks, Self Measuring Oil and Varnish—**  
 Acorn Brass Mfg. Co., 206 Fulton St., Chicago, Ill.

S. F. Bowser & Co., Ft. Wayne, Ind.  
**Tanks, Stock and Wind**

**Mill, Steel—**  
 A. Buch's Sons Co., Elizabethtown, Pa.

W. E. Caldwell Co., Louisville, Ky.  
 Flint & Walling Mfg. Co., Kendallville, Ind.

E. Keeler Co., Williamsport, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Southern Engine & Boiler Works, Jackson, Tenn.  
 Struthers, Wells & Co., Warren, Pa.

Vilter Mfg. Co., Milwaukee, Wis.  
**Tanks, Stock and Wind**

**Mill, Wood—**  
 Flint & Walling Mfg. Co., Kendallville, Ind.

Stover Mfg. Co., Freeport, Ill.  
 R. W. Whitehurst Co., Norfolk, Va.

**Tanks, Stone—**  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

**Tanks, Wagon, Steel—**  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Wickes Bros., Saginaw, Mich.  
**Tank Work—**  
 Broomell, Schmidt & Steacy Co., York, Pa.

W. E. Caldwell Co., Louisville, Ky.  
 Clarendon Boiler Works, No. Clarendon, Pa.

Forest City Steel & Iron Co., Cleveland, E. Keeler Co., Williamsport, Pa.

L. O. Koven & Bro., 50 Cliff St., N. Y.  
 Meehan Boiler & Construction Co., Lowellville, O.

Northern Engineering Works, Detroit, Mich.  
 Pennsylvania Engineering Works, New Castle, Pa.

Wm. B. Pollock Co., Youngstown, O.  
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
 Struthers, Wells Co., Warren, Pa.

Weber Gas & Gasoline Engine Co., Kansas City, Mo.  
 West Virginia Bridge & Construction Co., Wheeling, W. Va.

Robert Wetherill & Co., Chester, Pa.  
 Wickes Bros., Saginaw, Mich.

**Tannery Machinery—**  
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Struthers, Wells Co., Warren, Pa.  
**Tap Bolts, Drills, &c.—**

(See Bolts, Drills, Tap, &c.)  
**Tape Measures—**

(See Measures, Tape.)  
**Taper Rolling Machines—**  
 Williams, White & Co., Moline, Ill.

**Taper Threading Machines—**  
 Acme Machinery Co., Cleveland, O.

Webster & Perks Tool Co., Springfield, O.  
**Tapping and Reaming Machines, Pneumatic—**

Philadelphia Pneumatic Tool Co., 1038 Ridge Ave., Philadelphia, Pa.

**Tapping and Reaming Machines, Portable—**  
 Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.  
**Tapping Attachments, Automatic—**

Gould & Eberhardt, Newark, N. J.  
**Tapping Machines—**

Acme Machinery Co., Cleveland, O.  
 American Tool Works Co., Cincinnati, O.

Baker Bros., Toledo, O.  
 H. B. Brown & Co., East Hampton, Ct.

Cincinnati Machine Tool Co., Cincinnati, Exeter Machine Works, Exeter, N. H.

Garvin Machine Co., Spring and Varick Sts., New York.  
 Gould & Eberhardt, Newark, N. J.

Grant Mfg. & Machine Co., Bridgeport, Ct.  
 Hayden-Roth-Evans Co., Cincinnati, O.

Harvey Hubbell, Bridgeport, Ct.  
 E. J. Manville Machine Co., Waterbury, Ct.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
A. D. Quint, Hartford, Ct.  
D. Saunders' Sons, Yonkers, N. Y.  
Dwight Slate Machine Co., Hartford, Ct.  
Standard Engineering Co., Ellwood City, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.  
A. Streitt Machine Co., Cincinnati, O.  
Webster & Perks Tool Co., Springfield, O.

#### MERCHANTS.

George E. Affleck, 107 Liberty St., N. Y.  
Haid Machinery Co., Pittsburgh, Pa.  
Fairbanks Co., 416 Broome St., New York.  
Hill, Clarke & Co., Boston, Mass.  
Prentiss Tool & Supply Co., 115 Liberty St., New York.  
J. R. Vanduyk Co., 8 Dey St., New York.

**Tapping Machines. Automatic Nut—**

Acme Machinery Co., Cleveland, O.

**Tapping Machines. Nut—**

Acme Machinery Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
Blake & Johnson, Waterbury, Ct.  
H. B. Brown & Co., East Hampton, Ct.  
Detrick & Harvey Machine Co., Baltimore, Md.

Howard Iron Works, Buffalo, N. Y.  
National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Reliance Machine & Tool Co., Cleveland.  
Standard Engineering Co., Ellwood City, Pa.

Webster & Perks Tool Co., Springfield, O.  
Wells Bros. & Co., Greenfield, Mass.

**Tapping Machines. Turn-buckle—**

Acme Machinery Co., Cleveland, O.  
National Machinery Co., Tiffin, O.

**Taps—**

Etna Mfg. Co., 253 Broadway, New York.  
Superior Tap Co., Springfield, Vt.  
Whitman & Barnes Mfg. Co., Akron, O.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

Winter Bros. Co., Wrentham, Mass.

**Taps and Dies—**  
(See Stocks, Taps and Dies.)

**Taps and Drills—**

Ray State Tap & Die Co., Taunton, Mass.  
Chas. H. Bealy & Co., 10-12 No. Canal St., Chicago, Ill.

Butterfield & Co., Derby Line, Vt.  
S. W. Card Mfg. Co., Mansfield, Mass.  
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Cincinnati Screw & Tap Co., Cincinnati.  
Cleveland Twist Drill Co., Cleveland, O.

Etna Mfg. Co., 253 Broadway, New York.  
Fairbanks Co., 416 Broome St., N. Y.

Goodell-Pratt Co., Greenfield, Mass.  
Morse Twist Drill & Machine Co., New Bedford, Mass.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
E. F. Reece Co., Greenfield, Mass.

Superior Tap Co., Springfield, Vt.  
Wells Bros. Co., Greenfield, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

**Taps and Reamers. Pipe—**

Bay State Tap & Die Co., Taunton, Mass.  
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Etna Mfg. Co., 253 Broadway, New York.  
Fairbanks Co., 416 Broome St., N. Y.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
E. F. Reece Co., Greenfield, Mass.

D. Saunders' Sons, Yonkers, N. Y.  
Walworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

Winter Bros. Co., Wrentham, Mass.

**Taps. Champagne—**

Utica Drop Forge & Tool Co., Utica, N. Y.

C. T. Williamson Wire Novelty Co., Newark, N. J.

**Taps. Collapsible and Adjustable—**

Geometric Drill Co., New Haven, Ct.

**Taps. Shoe—**

N. F. Thayer Co., Boston, Mass.

**Tar Furnaces—**  
(See Furnaces, Portable, &c.)

**Targets. Cast Iron—**

John C. Kupferle, St. Louis, Mo.

**Tar Paper Saturating Machines—**  
(See Saturating Machines for Tar Paper.)

**Tea Bells, Kettles, &c.—**  
(See Bells, Kettles, &c.)

**Teas—**  
(See Angles and Teas.)

**Teeth. Bundle Carrier—**

Harrow Spring Co., Kalamazoo, Mich.

**Teeth. Cider Mill—**

Shelton Co., Derby, Ct.

**Teeth. Coal Breaker—**

Keystone Drop Forge Works, Chester, Pa.

**Teeth. Harrow—**

M. Lanz & Sons, Pittsburgh, Pa.  
Republic Iron & Steel Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Akron, O.

**Teeth. Hay Loading—**

Wm. D. Gibson Co., 23-27 N. Clinton St., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.

**Teeth. Hay Rake and Tedder—**

Harrow Spring Co., Kalamazoo, Mich.

**Teeth. Threshing Machine—**

Keystone Drop Forge Works, Chester, Pa.  
Rhode Island Tool Co., Providence, R. I.  
Transue & Williams Co., Alliance, O.  
Whitman & Barnes Mfg. Co., Akron, O.

**Telegraph and Telephone Goods—**

H. H. Franklin Mfg. Co., Syracuse, N. Y.  
Hoerle Mfg. Co., Pittsburgh, Pa.  
Holtzer-Cabot Electric Co., Boston, Mass.  
M. Lanz & Sons, Pittsburgh, Pa.  
W. R. Ostrander & Co., 22 Dey St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Telegraph and Telephone Pole Line Equipment—**

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Republic Iron & Steel Co., Chicago, Ill.  
Rockford Bolt Works, Rockford, Ill.

**Telegraph and Telephone Pole Supplies (Pins, Brackets, Cross Arms, Cleats, Cross Arm Braces, Steps, &c.)—**

M. Lanz & Sons, Pittsburgh, Pa.  
American Iron & Steel Mfg. Co., Lebanon, Pa.

Billings & Spencer Co., Hartford, Ct.  
E. O. Estes & Sons, 45-47 John St., N. Y.

New Castle Forge & Bolt Co., New Castle, Pa.  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

**Telegraph and Telephone Wire—**

(See Wires, Electrical.)

**Telegraph Pole Spoons—**

(See Shovels and Spoons, Pole.)

**Telephone and Telegraph Goods—**

(See Telegraph and Telephone Goods.)

**Telephone Bells—**

(See Bells, Telephone.)

**Telephone Parts—**

Federal Mfg. Co., Cleveland, O.

**Telescopes, Rifle—**

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Temperature Recording Instruments—**

(See Recording Instruments, Temperature, also Thermometers.)

**Tenoning Machines—**

W. F. & John Barnes Co., Rockford, Ill.

**Tenon Machines, Spoke—**

(See Spoke Tenon Machines.)

**Ten Pins and Balls—**

(See Balls and Pins.)

**Tension Carriages, Rope Transmission—**

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Case Mfg. Co., Columbus, O.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

**Tents, Duck—**

Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

**Terne Plate—**

(See Plate, Tin and Terne.)

**Testers, Center—**

J. T. Slocumb & Co., Providence, R. I.  
L. S. Starrett Co., Athol, Mass.

**Tester, Flour—**

E. C. Atkins & Co., Indianapolis, Ind.

**Testing Bureau, Rails and Railway Material—**

American Bureau of Inspection & Tests, Monadnock Bldg., Chicago, Ill.  
Robert W. Hunt & Co., 66 B'way, N. Y.

**Testing Machines, Cement—**

Fairbanks Co., 416 Broome St., N. Y.  
Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.

**Testing Machines, Chain—**

Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Testing Machines, Cloth—**

Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

**Testing Machines, Metal—**

Fairbanks Co., 416 Broome St., N. Y.  
Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

Wm. Sellers & Co. (Inc.), Philadelphia.

United Engineering & Foundry Co., Pittsburgh, Pa.

**Testing Machines, Oil—**

Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.

**Testing Machines, Pipe—**

Fischer Foundry & Machine Co., Pittsburgh, Pa.

Taylor, Wilson & Co., Ltd., Allegheny, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 204-210 E. 43d St., New York.

**Testing Machines, Rope and Twine—**

Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

**Testing Machines, Torsion—**

Pratt & Whitney Co., Hartford, Ct.

**Testing Machines, Wire—**

Falkenau-Sinclair Machine Co., 109 N. 22d St., Philadelphia, Pa.

Morgan Construction Co., Worcester, Mass.

**Testing Scales, Cement—**

(See Scales, Cement Testing.)

**Testing Sets, Electric—**

Holtzer-Cabot Electric Co., Boston, Mass.

**Tests, Drop—**

Case Mfg. Co., Columbus, O.  
Whiting Foundry Equipment Co., Harvey, Ill.

**Tethers, Animal—**

Athol Machine Co., Athol, Mass.  
Bridgeport Chain Co., Bridgeport, Ct.

**Textile Machinery—**

Dodge Machine Co., Mishawaka, Ind.  
Mossberg Wrench Co., Central Falls, R. I.

**Thermit Process Welding Iron and Steel—**

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

**Thermometers—**

American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
Crosby Steam Gauge & Valve Co., Boston.  
Helioc-Upton Co., Peabody, Mass.

**Thermometers, Maximum and Minimum—**

Helioc-Upton Co., Peabody, Mass.

**Thermometers, Oven—**

Helioc-Upton Co., Peabody, Mass.



**Thermometers, Recording—**  
Bristol Co., Waterbury, Ct.  
Helios-Upton Co., Peabody, Mass.

**Thermometers, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.

**Thermostats—**  
Helios-Upton Co., Peabody, Mass.  
W. R. Ostrander & Co., 22 Dey St., New York.

**Thimbles and Hooks—**  
(See Hooks and Thimbles.)

**Thimbles, Guy—**  
M. Lanz & Sons, Pittsburgh, Pa.

**Thimble Skeins and Boxes—**  
(See Skeins, Thimble, and Boxes.)

**Thimbles, Rope—**  
Covert Mfg. Co., West Troy, N. Y.  
Durable Rope Co., Boston, Mass.  
Jackson Mfg. Co., Harrisburg, Pa.  
M. Lanz & Sons, Pittsburgh, Pa.  
A. Leschen & Sons Rope Co., St. Louis, Mo.

Sargent & Co., 151 Leonard St., N. Y.  
Williamsport Wire Rope Co., Williamsport, Pa.

**Thimbles, Stove Pipe—**  
S. Cheney & Son, Manlius, N. Y.  
City Forge & Iron Works, Dayton, O.

**Thread Cutting Machines—**  
Hayden-Roth-Evans Co., Cincinnati, O.

**Threaders, Automatic Bolt—**  
Acme Machinery Co., Cleveland, O.

**Threaders, Bicycle Spoke—**  
Blake & Johnson, Waterbury, Ct.  
Detrick & Harvey Machine Co., Baltimore, Md.  
Geometric Drill Co., New Haven, Ct.  
Goodell-Pratt Co., Greenfield, Mass.  
E. J. Manville Machine Co., Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

**Threaders, Bolt—**  
Acme Machinery Co., Cleveland, O.  
American Machinery Co., Willoughby, O.  
Blake & Johnson, Waterbury, Ct.  
H. B. Brown & Co., East Hampton, Ct.  
Asa S. Cook Co., Hartford, Ct.  
Detrick & Harvey Machine Co., Baltimore, Md.

Fairbanks Co., 416 Broome St., New York.

E. J. Manville Machine Co., Waterbury, Ct.  
National Machinery Co., Tiffin, O.  
Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Pratt & Whitney Co., Hartford, Ct.  
Reliance Machine & Tool Co., Cleveland, O.

Webster & Perks Tool Co., Springfield, O.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

**Threaders, Lag Screw—**  
Baker Bros., Toledo, O.  
Asa S. Cook Co., Hartford, Ct.

**Threaders, Pipe—**  
Walworth Mfg. Co., Boston, Mass.

**Threading and Cutting Machines, Pipe—**  
(See Pipe Cutting and Threading Machines.)

**Threading Lathes—**  
(See Lathes, Automatic Screw Threading.)

**Threading Machines, and Coach Screw—**  
Baker Bros., Toledo, O.

**Threading Machines, SI Metal—**

E. W. Bliss Co., Brooklyn, N. Y.  
Consolidated Press & Tool Co., 96-1 Clinton St., Chicago, Ill.

**Threading Tools—**  
(See Tools, Thread Cutting Lath Thread Rolling Machine Screw—)

Blake & Johnson, Waterbury, Ct.  
E. J. Manville Machine Co., Waterbury, Ct.

**Threshing Machine Tee—**  
(See Teeth, Threshing Machine)

**Throwing Shot—**  
A. C. Williams, Ravenna, O.

**Thumb Nut and Se Blanks—**  
(See Blanks.)

**Thumb Nuts, Screws—**  
(See Nuts, Screws.)

**Ticket Dating Stamps—**  
(See Stamps, Dating Railroad Ticket)

**Ticket Hooks, Punches—**  
(See Hooks, Punches.)

**Tie-out Chains—**  
(See Tethers, Animal.)

**Tie Rods—**  
(See Rods, Tie.)

**Ties, Bale—**

W. J. Adam, Joliet, Ill.  
American Steel Hoop Co., Philade Crawfordville Wire & Nail Co., Fordsville, Ind.

Grand Crossing Tack Co., Grand ing, Ill.

Griswold Wire Co., Braddock, Pa.

New Process Steel & Wire Co., East Louis, Ill.

H. P. & H. F. Wilson, 577-579 10th New York.

**Ties, Cattle—**

Bridgeport Chain Co., Bridgeport, Covert Mfg. Co., West Troy, N. Y.

Covert's Saddlery Works, Farmer, Metal Stamping Co., Niagara Falls.

Onelda Community, Kenwood, N. Sargent & Co., 151 Leonard St., N. Standard Chain Co., Pittsburgh, Pa.

**Ties, Cotton—**

American Steel Hoop Co., Pittsburgh American Tube & Stamping Co., B port, Ct.

Pittsburgh Steel Co., Pittsburgh, F

**Ties, Steel Railroad—**

Atlas Car & Mfg. Co., Cleveland, Q Arthur Koppel, 66 Broad St., New

**Ties, Veneer—**

Metal Stamping Co., Niagara Falls,

**Ties, Wall—**

Cleveland Wire Spring Co., Cleveland Donovan Wire & Iron Co., Toledo, Metal Stamping Co., Niagara Falls,

**Tighteners, Belt—**  
(See Belt Tighteners.)

**Tile Machinery—**

Consolidated Press & Tool Co., 96-1 Clinton St., Chicago, Ill.

F. R. Patch Mfg. Co., Rutland, Vt

Jeffrey Mfg. Co., Columbus, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.  
South Pittsburgh Iron Works, Claysville, Pa.

**Tips and Fenders, Rubber—**  
H. O. Canfield, Bridgeport, Ct.

**Tips, Chair and Clutch—**  
Elastic Tip Co., Boston, Mass.

**Tips, Hame—**  
Walter R. Woodruff & Sons Co., Mt. Carmel, Ct.

**Tips, or Sockets, Shaft, Yoke, Pole and Whistle-tree—**

Covert's Saddlery Works, Farmer, N. Y.  
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

**Tips, Screw—**  
Elastic Tip Co., Boston, Mass.

**Tire Benders, Bolts, &c.—**  
(See Benders, Bolts, &c.)

**Tire Repair Outfits and Supplies—**  
Scovill Mfg. Co., Waterbury, Ct.

**Tires, Car and Locomotive—**  
Latrobe Steel Co., Girard Bldg., Philadelphia, Pa.

**Tires, Steel and Iron, Carriage and Wagon—**  
Logan Iron & Steel Co., Burnham, Pa.

**Toasters—**  
J. L. Clark Hardware Co., Rockford, Ill.  
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.

Parker Wire Goods Co., Worcester, Mass.  
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

Western Wire Goods Co., Buffalo, N. Y.  
C. T. Williamson Wire Novelty Co., Newark, N. J.

(See also Kitchen Articles, Wire.)  
**Toasters, Omelet Chafing Dish—**

New York Stamping Co., Brooklyn, N. Y.

**Tobacco Boxes, Cutters, &c.—**  
(See Boxes, Cutters, &c.)

**Toe Calks—**  
(See Calks.)

**Toilet Clippers—**  
(See Clippers, Horse and Toilet.)

**Tokens—**  
American Railway Supply Co., 24 Park Place, New York.

**Tomato Guards—**  
(See Guards, Flower and Tomato.)

**Tongs—**  
(See Shovels, Tongs, Pokers, Fire Sets, &c.)

**Tongs, Blacksmiths—**  
Hay-Budden Mfg. Co., Brooklyn, N. Y.  
Heller Bros. Co., Newark, N. J.  
Sargent & Co., 151 Leonard St., N. Y.

**Tongs, Carbon—**  
Billings & Spencer Co., Hartford, Ct.

**Tongs, Coal—**  
Fanner Mfg. Co., Cleveland, O.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.  
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.  
Sargent & Co., 151 Leonard St., N. Y.

**Tongs, Crucible—**  
Byram & Co., Inc., Detroit, Mich.  
S. Obermayer Co., Cincinnati, O.

**Tongs, Granite Tool—**  
Trow & Holden, Barre, Vt.

**Tongs, Ice—**  
Branchville Ice Tool Works, Branchville, Ct.

Fanner Mfg. Co., Cleveland, O.  
Federal Mfg. Co., Cleveland, O.  
Hay-Budden Mfg. Co., Brooklyn, N. Y.  
Louden Machinery Co., Fairfield, Ia.  
L. & I. J. White, Buffalo, N. Y.  
W. T. Wood & Co., Arlington, Mass.

**Tongs, Pipe—**  
Barnes Tool Co., New Haven, Ct.  
Hollands Mfg. Co., Erie, Pa.  
Jarecki Mfg. Co., Erie, Pa.

Kilborn & Bishop Co., New Haven, Ct.  
D. Saunders' Sons, Yonkers, N. Y.  
Trinmont Mfg. Co., Roxbury, Mass.  
Walworth Mfg. Co., Boston, Mass.

**Tongs, Pipe Hanger—**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Garry Iron & Steel Co., Cleveland, O.

**Tongs, Roofing—**  
Garry Iron & Steel Co., Cleveland, O.  
Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Tongs, Skidding—**  
Peter Gerlach Co., Cleveland, O.  
Morley Bros., Saginaw, Mich.

**Tool Boxes, Chests, Grinders, Holders—**

(See Boxes, Chests, Grinders, Holders.)  
**Tool Makers' Clamps—**  
(See Clamps, Tool Makers'.)

**Tools and Supplies, Factory Railway, &c., Dealers in—**

Apex Equipment Co., 11 Broadway, N. Y.  
Block-Pollak Iron Co., Cincinnati, O.  
Contractors' Equipment Co., Betz Building, Philadelphia, Pa.

Jos. F. McCoy Co., 157 Chambers St., New York.

Niles-Bement-Pond Co., 138 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Sebastian Lathe Co., Cincinnati, O.  
Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

**Tools, Automatic Boring—**  
Millers Falls Co., 22 Warren St., N. Y.

**Tools, Bell Centering—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.

**Tools, Boiler Makers', Butcher, &c.—**

(See Boiler Makers', Butcher, &c.)

**Tools, Boring—**  
(See Boring Tools.)

**Tools, Brass Working—**

P. Blaisdell & Co., Worcester, Mass.  
Blake & Johnson, Waterbury, Ct.  
E. W. Bliss Co., Brooklyn, N. Y.  
E. J. Manville Machine Co., Waterbury, Ct.  
Niles-Bement-Pond Co., 138 Liberty St., New York  
Pratt & Whitney Co., Hartford, Ct.

**Tools, Carriage Makers'—**  
Chapin-Stephens Co., Pine Meadow, Ct.

**Tools, Compressed Air—**  
(See Compressed Air Tools.)

**Tools, Cutting Off—**

(See Cutting-Off Tools.)  
Billings & Spencer Co., Hartford, Ct.  
Goodell Mfg. Co., Greenfield, Mass.  
Pratt & Whitney Co., Hartford, Ct.

**Tools, Diamond Pointed—**  
American Emery Wheel Works, Providence, R. I.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
Est. of John Dickinson, 64 Nassau St., New York  
Thos. L. Dickinson, 45 Vesey St., N. Y.

J. L. Osgood, Buffalo, N. Y.  
Steel Set Diamond Co., 36 Gold St., N. Y.

**Tools, Granite Shaping—**  
J. L. Osgood, Buffalo, N. Y.

Steel Set Diamond Co., 36 Gold St., N. Y.

**Tools, Dowel, Pin, &c.—**

Chandler & Farquhar, Boston, Mass.  
**Tools, Engravers'—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.

**Tool Sets—**  
(See Sets, Screw Driver and Tool.)

**Tool Sets, Garden—**  
(See Sets, Garden Tool.)

**Tool Sets, Hollow Handle—**  
(See Sets, Tool, Hollow Handle.)

**Tools, Filers' (Cleaners, Handles, Holders, &c.)—**  
Nicholson File Co., Providence, R. I.

**Tools, Floral—**  
American Fork & Hoe Co., Cleveland, O.

**Tools, Gang—**  
Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.

**Tools, Lathe Workers'—**  
Trow & Holden, Barre, Vt.

**Tools, Jewelers' and Tool Makers'—**

Billings & Spencer Co., Hartford, Ct.  
Hubley Mfg. Co., Lancaster, Pa.  
Nicholson File Co., Providence, R. I.  
Standard Machinery Co., Providence, R. I.

**Tools, Lumber—**  
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

**Tools, Lumber—**  
Peter Gerlach Co., Cleveland, O.

Morley Bros., Saginaw, Mich.  
Soule Steam Feed Works, Meridian, Miss.

**Tools, Miners' Canning—**  
Tower & Lyon Co., 95 Chambers St., New York

**Tools, Mining, Picks, Wedges, Scrapers, Bars, &c.—**

Iwan Bros., Streator, Ill.

**Tools, Opticians'—**

Est. of John Dickinson, 64 Nassau St., New York

**Tools, Paper Hangers'—**  
Webster & Perks Tool Co., Springfield, O.

**Tools, Parting—**  
Dame, Stoddard & Co., Boston, Mass.

**Tools, Paving Cutters'—**  
Trow & Holden, Barre, Vt.

**Tools, Piano Makers'—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.

**Tools, Planer and Shaper—**  
Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.

**Tools, Plasterers'—**  
Braunsdorf-Mueller Co., Elizabeth, N. J.

**Tools, Pneumatic—**  
(See Compressed Air Tools.)

**Tools, Reloading, Cartridge**

Ideal Mfg. Co., New Haven, Ct.  
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

**Tools, Repair, Rubber Tire**

Union Mfg. & Specialty Co., Buffalo, N. Y.

**Tools, Roofers' and Pavers'—**  
F. H. Evans, Brooklyn, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York

**Tools, Saw—**  
E. C. Atkins & Co., Indianapolis, Ind.

Diamond Saw & Stamping Works, Buffalo, N. Y.

Henry Disston & Sons, Philadelphia, Pa.  
Kilborn & Bishop Co., New Haven, Ct.

**Tools, Saw Makers'—**  
E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.

**Tools, Ship Carpenters'—**  
Simonds Mfg. Co., Fitchburg, Mass.

**Tools, Slaters'—**  
L. & I. J. White Co., Buffalo, N. Y.

Belden Machine Co., New Haven, Ct.  
Brown-Wales Co., Boston, Mass.

Niagara Machine & Tool Works, Buffalo, N. Y.

**Tools, Steel Balls—**  
(See Balls, Steel.)

**Tools, Thread Cutting Lathe**

Armstrong Bros. Tool Co., Chicago, Ill.  
Billings & Spencer Co., Hartford, Ct.

S. W. Card Mfg. Co., Mansfield, Mass.  
Crane Co., Chicago, Ill.

Hayden-Roth-Evans Co., Cincinnati, O.  
Pratt & Whitney Co., Hartford, Ct.

Reliance Machine & Tool Co., Cleveland, Mass.  
Wiley & Russell Mfg. Co., Greenfield, Mass.

**Tools, Well—**  
(See Well Supplies and Tools.)

**Tools, Wire Fence—**  
Reading Machine & Tool Co., Reading, Pa.

**Tools, Wood Engraving—**  
Dame, Stoddard & Co., Boston, Mass.

**Tools, Wood Turners'—**

Braunsdorf-Mueller Co., Elizabeth, N. J.  
Buck Bros., Millbury, Mass.

**Tops, Chimney Revolving—**

Berger Mfg. Co., Canton, O.  
Clark, Quilen & Morse, Peoria, Ill.  
Garry Iron & Steel Co., Cleveland, O.  
Iwan Bros., Streator, Ill.  
Lawrence Bros., Sterling, Ill.  
Osborn Mfg. Co., Cleveland, O.

**Tops, Malleable D-Handle—**

Avery Stamping Co., Cleveland, O.  
F. E. Kohler & Co., Canton, O.  
Piqua Handle & Mfg. Co., Piqua, O.

**Torches, Gasoline and Oil—**

Berger Mfg. Co., Canton, O.  
Bridgeport Brass Co., Bridgeport, Ct.  
Dangler Stove & Mfg. Div., Am. Stove Co., Cleveland, O.  
Gem Mfg. Co., Pittsburgh, Pa.  
Hollands Mfg. Co., Erie, Pa.  
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

Turner Brass Works, 44 No. Franklin St., Chicago, Ill.

White Mfg. Co., 93 Michigan Ave., Chicago, Ill.

**Torsion Testing Machines—**

(See Testing Machines, Torsion.)

**Tote Boxes—**

(See Boxes, Tote.)

**Tower Clocks—**

(See Clocks, Tower.)

**Towers, Cooling—**

(See Cooling Towers.)

**Towers, Fire Bell—**

W. E. Caldwell Co., Louisville, Ky.

**Towers, Spraying—**

Deming Co., Salem, O.

**Towers, Tank—**

W. E. Caldwell Co., Louisville, Ky.  
Flint & Walling Mfg. Co., Kendallville, Ind.

Forest City Steel & Iron Co., Cleveland.

Garry Iron & Steel Co., Cleveland, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Stover Mfg. Co., Freeport, Ill.

Struthers, Wells & Co., Warren, Pa.

**Toy Banks—**

(See Toy Savings Banks.)

**Toy Barrows, Wheel—**

A. C. Williams, Ravenna, O.

**Toy Beds—**

Arcade Mfg. Co., Freeport, Ill.

**Toy Bells—**

Gong Bell Mfg. Co., East Hampton, Ct.  
N. N. Hill Brass Co., East Hampton, Ct.

**Toy Bridges, Signals, Stations, Switches, Tunnels, &c.**

Ives Mfg. Corporation, Bridgeport, Ct.

**Toy Carts, Carriages and Wagons—**

Columbia Grey Iron Co., Columbia, Pa.

Hubley Mfg. Co., Lancaster, Pa.

**Toy Chisels—**

New England Specialty Co., North Easton, Mass.

**Toy Coffee Mills—**

Arcade Mfg. Co., Freeport, Ill.

Hubley Mfg. Co., Lancaster, Pa.

A. C. Williams, Ravenna, O.

**Toy Engines and Cars—**

Columbia Grey Iron Co., Columbia, Pa.

Hubley Mfg. Co., Lancaster, Pa.

Ives Mfg. Corporation, Bridgeport, Ct.

**Toy Fire Apparatus—**

Hubley Mfg. Co., Lancaster, Pa.

**Toy Hammers—**

Columbia Grey Iron Co., Columbia, Pa.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Toy Hatchets—**

Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
A. C. Williams, Ravenna, O.

Wrightsville Hardware Co., Wrightsville, Pa.

**Toy Hods, Coal—**

A. C. Williams, Ravenna, O.

**Toy Jack Stones—**

Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Toy Lawn Mowers—**

Arcade Mfg. Co., Freeport, Ill.

**Toy Locomotives—**

Hubley Mfg. Co., Lancaster, Pa.  
Ives Mfg. Corporation, Bridgeport, Ct.  
A. C. Williams, Ravenna, O.

**Toy Meat Choppers—**

Rollman Mfg. Co., Mt. Joy, Pa.

**Toy Pincers—**

Wrightsville Hardware Co., Wrightsville, Pa.

**Toy Pistols, Cap—**

Fanner Mfg. Co., Cleveland, O.

**Toy Plane Irons—**

New England Specialty Co., North Easton, Mass.

**Toy Pumps—**

Arcade Mfg. Co., Freeport, Ill.

**Toy Rakes—**

Columbia Grey Iron Co., Columbia, Pa.  
Iowa Farming Tool Co., Fort Madison, Ia.

**Toy Sad Irons—**

Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.

A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Toy Safes, Iron—**

A. C. Williams, Ravenna, O.

**Toy Savings Banks—**

Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
Hubley Mfg. Co., Lancaster, Pa.

Reading Hardware Co., Reading, Pa.

A. C. Williams, Ravenna, O.

**Toy Scales—**

Arcade Mfg. Co., Freeport, Ill.

**Toy Shovels and Spades—**

Columbia Grey Iron Co., Columbia, Pa.  
Mt. Pleasant Tool Co., Mt. Pleasant, Pa.  
Wrightsville Hardware Co., Wrightsville, Pa.

**Toys, Iron and Steel—**

Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
Hoerle Mfg. Co., Pittsburgh, Pa.

Hubley Mfg. Co., Lancaster, Pa.

Rollman Mfg. Co., Mt. Joy, Pa.

A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Toys, Mechanical—**  
Ives Mfg. Corporation, Bridgeport, Ct.

**Toy Stoves—**  
Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
Fanner Mfg. Co., Cleveland, O.  
Globe Machine & Stamping Co., Cleve-  
land, O.

A. C. Williams, Ravenna, O.  
**Toys, Wooden—**  
E. B. Estes & Sons, 45-47 John St., N. Y.

**Toy Tools—**  
Arcade Mfg. Co., Freeport, Ill.  
Columbia Grey Iron Co., Columbia, Pa.  
A. C. Williams, Ravenna, O.  
Wrightsville Hardware Co., Wrightsville,  
Pa.

**Toy Trucks—**  
A. C. Williams, Ravenna, O.

**Toy Tube—**  
Richmond Cedar Works, Richmond, Va.

**Trace Buckles, Chains—**  
(See Buckles, Chains.)

**Tracing Wheels—**  
(See Wheels, Tracing.)

**Track Bolts, Gauges—**  
(See Bolts, Gauges.)

**Track, Door Hanger—**  
(See Rail Door.)

**Track, Industrial—**  
Bethlehem Foundry & Machine Co.,  
South Bethlehem, Pa.  
C. W. Hunt Co., West New Brighton,  
New York.  
Arthur Koppel, 65-68 Broad St., N. Y.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.

**Track, Overhead Carrying—**  
Atlas Car & Mfg. Co., Cleveland, O.  
Brown Hoisting Machinery Co., Cleve-  
land, O.  
Case Mfg. Co., Columbus, O.  
Ed. Harrington, Son & Co., Inc., Phila-  
delphia, Pa.  
A. Leschen & Sons Rope Co., St. Louis,  
Mo.

Louden Machinery Co., Fairfield, Ia.  
McCabe Hanger Mfg. Co., 425-427 W. 26th  
St., New York.  
F. E. Myers & Bro., Ashland, O.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.  
Ney Mfg. Co., Canton, O.  
Niles-Bement-Pond Co., 134-138 Liberty  
St., New York.

Northern Engineering Works, Detroit,  
Mich.  
J. E. Porter Co., Ottawa, Ill.  
J. G. Speidel, Reading, Pa.  
Whiting Foundry Equipment Co., Harvey,  
Ill.  
Wilcox Mfg. Co., Aurora, Ill.

**MERCHANTS**  
Fairbanks Co., 416 Broome St., N. Y.  
Jos. P. McCoy Co., 127 Chambers St.,  
New York.

**Track, Portable—**  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York.

**Trade Checks—**  
American Railway Supply Co., 24 Park  
Place, New York.

**Trade Journal Advertising—**  
Francis I. Maule, 402 Sansom St., Phila-  
delphia, Pa.

**Trammels and Trammel  
Points—**  
Athol Machine Co., Athol, Mass.  
Henry Diaston & Sons, Philadelphia, Pa.  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
Sawyer Tool Mfg. Co., Fitchburg, Mass.  
Stanley Rule & Level Co., New Britain, Ct.  
L. S. Starrett Co., Athol, Mass.  
Tower & Lyon Co., 95 Chambers St.,  
New York.

**Tramways, Wire Rope**  
Broderick & Bascom Rope Co., St. Louis.  
A. Leschen & Sons Rope Co., St. Louis.  
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.  
Macomber & Whyte Rope Co., Chicago.  
New Jersey Foundry & Machine Co., 9-15  
Murray St., New York  
Trenton Iron Co., Trenton, N. J.

**Transfer Tables, Locomo-  
tives—**  
Brown Hoisting Machinery Co., Cleve-  
land, O.  
Industrial Works, Bay City, Mich.  
Wm. Sellers & Co., Inc., 18th and Hamil-  
ton Sts., Philadelphia, Pa.  
Taunton Locomotive Mfg. Co., Taunton,  
Mass.

**Transformers, Electric—**  
General Electric Co., Schenectady, N. Y.  
Holtzer-Cabot Electric Co., Boston, Mass.  
Westinghouse Electric & Mfg. Co., Pitts-  
burgh, Pa.

**Transits—**  
Keuffel & Esser Co., 127 Fulton St., N. Y.  
L. S. Starrett Co., Athol, Mass.

**Transmission Machinery,  
Electric Power—**  
Case Mfg. Co., Columbus, O.  
General Electric Co., Schenectady, N. Y.  
Westinghouse Electric & Mfg. Co., Pitts-  
burgh, Pa.

**Transmission, Rope—**  
(See Rope Transmission.)

**Trancon Catchers, Centers,  
Lifters—**  
(See Catchers, Centers, Lifters.)

**Trap Door Hinges—**  
(See Hinges, Trap Door.)

**Traps, Basin—**  
Illinois Malleable Iron Co., 30-32 W. Mon-  
roe St., Chicago, Ill.

**Traps, Fish—**  
Fred. J. Meyers Mfg. Co., Hamilton, O.

**Traps, Fly—**  
Fred. J. Meyers Mfg. Co., Hamilton, O.  
Parker Wire Goods Co., Worcester, Mass.  
Sidney Shepard & Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Traps, Game—**  
Oneida Community, Kenwood, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

**Traps, Mole—**  
Sargent & Co., 151 Leonard St., N. Y.  
Enterprise Mfg. Co., Philadelphia, Pa.

**Traps, Rat and Mouse—**

M. J. Bartlett & Son, 196 So. Clark St., Chicago, Ill.  
 Buffalo Wire Works Co., Buffalo, N. Y.  
 Burditt & Williams Co., Boston, Mass.  
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
 Estey Wire Works Co., 59 Fulton St., New York.  
 Edward S. Hotchkiss, Bridgeport, Ct.  
 Ludlow-Saylor Wire Co., St. Louis, Mo.  
 Fred. J. Meyers Mfg. Co., Hamilton, O.  
 Parker Wire Goods Co., Worcester, Mass.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.  
 Smith & Edge Mfg. Co., Bridgeport, Ct.  
 Wire Goods Co., Worcester, Mass.

**Traps, Roach—**

Fred. J. Meyers Mfg. Co., Hamilton, O.

**Traps, Sewer—**

Barnes Mfg. Co., Mansfield, O.  
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Traps, Steam—**

American Blower Co., Detroit, Mich.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Crane Co., Chicago, Ill.  
 Julian D'Este Co., Boston, Mass.  
 Eymon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.  
 Helios-Union Co., Peabody, Mass.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 Jenkins Bros., 71 John St., New York.  
 Mason Regulator Co., Boston, Mass.  
 B. F. Sturtevant Co., Boston, Mass.  
 Walworth Mfg. Co., Boston, Mass.

**Traps, Stench—**

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 John C. Kupperle, St. Louis, Mo.  
 Pleuger & Henger Mfg. Co., St. Louis.

**Trap Wrenches—**

(See Wrenches, Trap.)

**Travelers, Boom and Deck—**

W. & J. Tiebout, 118 Chambers St., N. Y.

**Tray Fittings, Trunk—**

J. H. Sessions & Son, Bristol, Ct.

**Trays and Scrapers, Crumb—**

New York Stamping Co., Brooklyn, N. Y.

**Trays, Card, Children's, Crumb, Spoon, &c., Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Trays, Casting—**

Byram & Co., Detroit, Mich.

**Trays, Desk—**

Globe-Wernicke Co., Cincinnati, O.

**Trays, Electric Lamp—**

W. J. Clark Co., Salem, O.

**Globe Machine & Stamping Co., Cleveland, O.****Trays, Knife—**

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

**Trays, Metal—**

New York Stamping Co., Brooklyn, N. Y.  
 Rome Mfg. Co., Rome, N. Y.  
 Sidney Shepard & Co., Buffalo, N. Y.  
 Sturges & Burn Mfg. Co., Chicago, Ill.

**Trays, Wire, Paper—**

Wire Goods Co., Worcester, Mass.

**Treads, Stair, Iron—**

S. Cheney & Son, Manlius, N. Y.

**Tree Guards, Labels—**

(See Guards, Labels.)

**Trellises, Wire—**

Buffalo Wire Works Co., Buffalo, N. Y.  
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.  
 Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Howard & Morse, 45 Fulton St., N. Y.

International Fence & Fireproofing Co., Columbus, O.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred. J. Meyers Mfg. Co., Hamilton, O.

W. S. Tyler Co., Cleveland, O.

**Triangles, Steel—**

Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Diaston & Sons, Philadelphia, Pa.

Keuffel & Esser Co., 127 Fulton St., N. Y.

**Triangles, T Squares, Curves, Ellipses, &c.—**

(See Drawing Materials.)

**Triers, Butter and Cheese—**

American Cutlery Co., Chicago, Ill.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Trimmers, Bolt Head—**

National Machinery Co., Tiffin, O.

**Trimmers, Brush—**

Coldwell Lawn Mower Co., Newburgh, N. Y.

**Trimmers, Lamp—**

Acme Shear Co., Bridgeport, Ct.

Bridgeport Brass Co., Bridgeport, Ct.

H. B. Ives Co., New Haven, Ct.

**Trimmers, Leather—**

H. G. Barr, Worcester, Mass.

**Trimmers, Lumber—**

Southern Engine & Boiler Works, Jackson, Tenn.

Wickes Bros., Saginaw, Mich.

**Trimmers, Photograph**

S. G. Monce, Unionville, Ct.

**Trimmers, Spoke—**

C. E. Jennings Co., 42 Murray St., N. Y.

Millers Falls Co., 22 Warren St., N. Y.

**Trimmers' Tacks—**

(See Tacks, Trimmers.)

**Trimmers, Two-Saw Wood—**

Lane & Bodley Co., Cincinnati, O.

**Trimmers, Wall Paper—**

Webster & Perks Tool Co., Springfield, O.

**Trimmers, Wood—**

American Machinery Co., Grand Rapids, Mich.

Fox Machine Co., Grand Rapids, Mich.

Lane Mfg. Co., Montpelier, Vt.

Washburn Shops, Worcester, Mass.

Wickes Bros., Saginaw, Mich.

**Trimming, Bag, Box, &c.—**

R. C. Jenkinson & Co., Newark, N. J.

**Trimminings, Car, Brass-**  
Plunger & Hanger Mfg. Co., St. Louis.  
(See also Locks and Trimminings, Car.)

**Trimminings, Overall-**  
Spencer Wire Co., Worcester, Mass.  
**Trimminings, Shaft Leather-**  
McKinnon Dash Co., Buffalo, N. Y.

**Trimminings, Stove-**  
American Tube & Stamping Co., Bridgeport, Ct.  
Fanner Mfg. Co., Cleveland, O.  
Kilbourne Mfg. Co., Troy, N. Y.

**Trimminings, Tinnings'-**  
(See Tinnings' Trimminings.)

**Trimminings, Trunk-**  
R. C. Jenkinson & Co., Newark, N. J.  
J. H. Sessions & Son, Bristol, Ct.

**Trolley Carriages, Hoists, Insulators, Poles-**  
(See Carriages, Hoists, Insulators, Poles.)

**Trolley Materials, Electric-**

Billings & Spencer Co., Hartford, Ct.  
Keystone Drop Forge Works, Chester, Pa.  
Brown Hoisting Machinery Co., Cleveland, O.

Chisholm & Moore Mfg. Co., Cleveland, O.  
Kilborn & Bishop Co., New Haven, Ct.

**Trolleys, I-Beam-**  
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Yale & Towne Mfg. Co., 9-15 Murray St., New York.

**Trolleys, Pneumatic-**  
Garry Iron & Steel Co., Cleveland, O.  
Northern Engineering Works, Detroit, Mich.

**Trolleys, Street Railway-**  
Atlas Car & Mfg. Co., Cleveland, O.  
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

R. D. Nuttall Co., Pittsburg, Pa.

**Trolley Wire-**  
(See Wires, Electric.)

**Troughs, Cattle-**  
Avery Stamping Co., Cleveland, O.  
A. Buch's Sons Co., Elizabethtown, Pa.  
Nazareth Foundry & Machine Co., Nazareth, Pa.

West Side Foundry Co., Troy, N. Y.

**Troughs, Conveyor-**  
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

**Troughs, Pig-**  
S. Cheney & Son, Manlius, N. Y.

**Troughs, Poultry-**  
A. Buch's Sons Co., Elizabethtown, Pa.

**Troughs, Pump-**  
A. Buch's Sons Co., Elizabethtown, Pa.

**Troughs, Guards, Hangers, Stretchers-**  
(See Guards, Hangers, Stretchers.)

**Trowels, Brick, Plastering, &c.-**

E. C. Atkins & Co., Indianapolis, Ind.  
Geo. H. Bishop & Co., Cincinnati, O.  
Henry Disston & Sons, Philadelphia, Pa.  
National Saw Co., Newark, N. J.  
Wiebusch & Hilger, 9 Murray St., N. Y.

**Trowels, Coke-**  
Henry Disston & Sons, Philadelphia, Pa.

**Trowels, Garden-**  
Avery Stamping Co., Cleveland, O.  
W. J. Clark Co., Salem, O.

Henry Disston & Sons, Philadelphia, Pa.  
F. E. Kohler & Co., Canton, O.  
New York Stamping Co., Brooklyn, N. Y.  
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Truck Casters, Wheels-**  
(See Casters, Wheels.)

**Trucks, Bag-**  
Boston & Lockport Block Co., Boston.  
A. Buch's Sons Co., Elizabethtown, Pa.  
Case Mfg. Co., Columbus, O.  
Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
Warsaw Elevator Co., Warsaw, N. Y.

**MERCHANTS**  
Borden & Sellick Co., 43 Lake St., Chicago, Ill.

**Trucks, Bakers'-**  
Fairbanks Co., 416 Broome St., New York.

**Trucks, Barrel-**  
Adams Co., Dubuque, Ia.  
Atlas Car & Mfg. Co., Cleveland, O.  
Boston & Lockport Block Co., Boston.  
Case Mfg. Co., Columbus, O.  
Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.

Enterprise Mfg. Co., Philadelphia, Pa.  
F. H. Evans, Brooklyn, N. Y.  
Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
McKinney Mfg. Co., Allegheny, Pa.  
Syracuse Chilled Plow Co., Syracuse, N. Y.

Tucker & Dorsey Mfg. Co., Indianapolis.  
Warsaw Elevator Co., Warsaw, N. Y.  
R. W. Whitehurst & Co., Norfolk, Va.

**Trucks, Basket-**  
Fairbanks Co., 416 Broome St., N. Y.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
Warsaw Elevator Co., Warsaw, N. Y.  
R. W. Whitehurst & Co., Norfolk, Va.

**Trucks, Beam or Telegraph Pole-**

Fairbanks Co., 416 Broome St., N. Y.

**Trucks, Box-**  
City Forge & Iron Works, Dayton, O.

**Trucks, Brick-**  
Atlas Car & Mfg. Co., Cleveland, O.  
Wm. Bayley & Sons Co., Milwaukee, Wis.

Boston & Lockport Block Co., Lockport, N. Y.

Fairbanks Co., 416 Broome St., N. Y.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
Warsaw Elevator Co., Warsaw, N. Y.

**Trucks, Bullion-**  
Fairbanks Co., 416 Broome St., New York.

**Trucks, Car-**  
Fairbanks Co., 416 Broome St., New York.

**Trucks, Coal-**  
Fairbanks Co., 416 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Trucks, Dry Kila-**  
American Blower Co., Detroit, Mich.  
Atlas Car & Mfg. Co., Cleveland, O.  
Fairbanks Co., 416 Broome St., New York.  
B. F. Sturtevant Co., Boston, Mass.  
Warsaw Elevator Co., Warsaw, N. Y.  
Wickes Bros., Saginaw, Mich.



**Trucks, Foundry—**

Atlas Car & Mfg. Co., Cleveland, O.  
 Boston & Lockport Block Co., Boston.  
 Byram & Co., Detroit, Mich.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Jones & Laughlin Steel Co., Pittsburgh.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.  
 Arthur Koppel, 66 Broad St., New York.  
 Northern Engineering Works, Detroit, Mich.  
 J. W. Parson Co., Philadelphia, Pa.  
 Sheffield Car Co., Three Rivers, Mich.  
 R. F. Sturtevant Co., Boston, Mass.  
 Warsaw Elevator Co., Warsaw, N. Y.  
 R. W. Whitehurst & Co., Norfolk, Va.  
 Whiting Foundry Equipment Co., Harvey, Ill.

**Trucks, Garbage—**

Fairbanks Co., 416 Broome St., New York.

**Trucks, Laundry—**

Fairbanks Co., 416 Broome St., New York.

**Trucks, Log—**

Lane & Bodley Co., Cincinnati, O.

**Trucks, Office or Bank—**

Fairbanks Co., 416 Broome St., New York.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Trucks, Paper Roll—**

Fairbanks Co., 416 Broome St., New York.

**Trucks, Printers' Form—**

Fairbanks Co., 416 Broome St., N. Y.

R. A. Hart, Battle Creek, Mich.

**Trucks, Store, Warehouse, &c.—**

Atlas Car & Mfg. Co., Cleveland, O.

Boston & Lockport Block Co., Boston.

Chicago Scale Co., 292-296 Jackson Boulevard, Chicago, Ill.

City Forge & Iron Works, Dayton, O.

F. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

McKinney Mfg. Co., Allegheny, Pa.

Sheffield Car Co., Three Rivers, Mich.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Withington & Cooley Mfg. Co., Jackson, Mich.

**Trucks, Stove—**

Adams Co., Dubuque, Ia.

Arcade Mfg. Co., Freeport, Ill.

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Lockport, N. Y.

Fairbanks Co., 416 Broome St., N. Y.

S. M. Howes Co., Boston, Mass.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

C. S. Mersick & Co., New Haven, Ct.

Tucker & Dorsey Mfg. Co., Indianapolis, Ind.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

**Trucks, Street Car—**

Fairbanks Co., 416 Broome St., New York.

Sheffield Car Co., Three Rivers, Mich.

**Trucks, Tannery—**

Fairbanks Co., 416 Broome St., New York.

**Trucks, Timber—**

E. C. Atkins & Co., Indianapolis, Ind.  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Boston & Lockport Block Co., Lockport, N. Y.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.  
 Lane & Bodley Co., Cincinnati, O.  
 Morley Bros., Saginaw, Mich.  
 Southern Engine & Boiler Works, Jackson, Tenn.  
 B. F. Sturtevant Co., Boston, Mass.  
 Warsaw Elevator Co., Warsaw, N. Y.

**Trucks, Tip—**

Fairbanks Co., 416 Broome St., New York.

**Trucks, Window Glass—**

Fairbanks Co., 416 Broome St., New York.

**Trucks, Wire—**

Fairbanks Co., 416 Broome St., New York.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

**Truck Wheels, Rubber Covered—**

(See Wheels, Rubber Tired.)

**Trumpets, Firemen's, Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Trunk Carriers, Clamps, &c.—**

(See Carriers, Clamps, &c.)

**Trunk Hardware—**

J. H. Sessions & Son, Bristol, Ct.

**Trunk Makers' Tools—**

George A. Ohl Co., Newark, N. J.

**Truss Rods—**

(See Bolts, Bridge and Roof.)

**Tryers, Butter and Cheese—**

Dame, Stoddard & Co., Boston, Mass.

**Try Squares—**

(See Squares, Try.)

**Tub Ears, Handles, Hoops—**

(See Ears, Handles, Hoops.)

**Tube Cutters, Expanders, &c.—**

(See Cutters, Expanders, &c.)

**Tube Hole Punches—**

(See Punches, Hand and Tube Hole.)

**Tube Reducing Machines—**

Crane Co., Chicago, Ill.

Ellwood Iron Tube Works, Oak Lane Sta., Philadelphia, Pa.

National Tube Co., Pittsburgh, Pa.

Shelby Steel Tube Co., Pittsburgh, Pa.

Standard Machinery Co., Providence, R. I.

Youngstown Iron Sheet & Tube Co., Youngstown, O.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.

Bourne-Fuller Co., Cleveland, O.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

E. Keeler Co., Williamsport, Pa.

McDowell & Co., Pittsburgh, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. H. Wallace & Co., 66 Broadway, New York.

Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.

**Tubes, Brass and Copper**

**Condensers—**  
Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
Randolph-Cloves Co., Waterbury, Ct.

**Tubes, Combination, Platin-**

**um—**  
J. Bishop & Co., Malvern, Pa.

**Tubes, Glass—**  
Ashton Valve Co., Boston, Mass.

**Tubes, Gold Plated—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubes, Grain Drill, Rubber—**  
Whitman & Barnes Mfg. Co., Akron, O.

**Tubes, Grain Drill, Wire—**  
Cleveland Wire Spring Co., Cleveland, O.

**Tubes, Hydraulic Seamless Steel—**

John S. Leng's Son & Co., 4 Fletcher St., New York.

National Tube Co., Pittsburgh, Pa.  
Shelby Steel Tube Co., Pittsburgh, Pa.

**Tubes, Platinum Plated—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubes, Punch—**  
Eyelet Tool Co., Boston, Mass.

**Tubes, Speaking—**  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Berger Mfg. Co., Canton, O.  
Canton Steel Roofing Co., Canton, O.

W. R. Ostrander & Co., 22 Dey St., N. Y.

**Tube Works, Equipment—**  
United Engineering & Foundry Co., Pittsburgh, Pa.

**Tubing, Aluminum—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Pittsburgh Reduction Co., Pittsburgh, Pa.

**Tubing, Atomizer—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Automobile—**  
Shelby Steel Tube Co., Pittsburgh, Pa.

Standard Welding Co., Cleveland, O.

**Tubing, Bicycle—**  
American Tube & Stamping Co., Bridgeport, Ct.

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

John S. Leng's Son & Co., 4 Fletcher St., New York.

National Tube Co., Pittsburgh, Pa.  
Shelby Steel Tube Co., Pittsburgh, Pa.

**Tubing, Brass and Copper—**  
American Tube & Stamping Co., Bridgeport, Ct.

Ansonia Brass & Copper Co., 99 John St., New York.

Bridgeport Brass Co., Bridgeport, Ct.  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Phoenix Tube Co., Brooklyn, N. Y.  
Randolph-Cloves Co., Waterbury, Ct.

Scovill Mfg. Co., Waterbury, Ct.  
Waterbury Brass Co., Waterbury, Ct.

**Tubing, Bronze—**  
Ansonia Brass & Copper Co., 99 John St., New York.

Randolph-Cloves Co., Waterbury, Ct.  
Scovill Mfg. Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Tubing, Cold Drawn.**

**Square—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Shelby Steel Tube Co., Pittsburgh, Pa.

**Tubing, German Silver—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Randolph-Cloves Co., Waterbury, Ct.  
Scovill Mfg. Co., Waterbury, Ct.

**Tubing, Gold—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, High Carbon Steel—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Hypodermic Needle—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Iron Lined, Brass and Bronze—**  
Phoenix Tube Co., Brooklyn, N. Y.

**Tubing, Nickel—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Platinum—**  
J. Bishop & Co., Malvern, Pa.

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Pump, Steel—**  
Cleveland Galvanizing Works, Cleveland.

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

La Belle Iron Works, Steubenville, O.  
St. Joseph Pump & Mfg. Co., St. Joseph, Mo.

**Tubing, Pump, Wood—**  
St. Joseph Pump & Mfg. Co., St. Joseph, Mo.

Union Mfg. Co., New Britain, Ct.

**Tubing, Rubber—**  
H. O. Canfield, Bridgeport, Ct.

Whitman & Barnes Mfg. Co., Akron, O.

**Tubing, Seamless Bronze—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Seamless Lead and Tin—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Seamless, Plants for—**  
Hugh L. Thompson, Waterbury, Ct.

**Tubing, Seamless Steel—**  
American Tube & Stamping Co., Bridgeport, Ct.

Federal Mfg. Co., Cleveland, O.  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

John S. Leng's Son & Co., 4 Fletcher St., New York.

National Tube Co., Pittsburgh, Pa.  
Shelby Steel Tube Co., Pittsburgh, Pa.

Standard Welding Co., Cleveland, O.

**Tubing, Seamless Steel—**  
Steel—

Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Silver—**  
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Randolph-Cloves Co., Waterbury, Ct.

**Tubing, Tool Steel, for Drills—**

Ellwood Iron Tube Works, Oak Lane Sta., Philadelphia, Pa.

**Tubing, Well—**

Cleveland Galvanizing Works, Cleveland.

Crane Co., Chicago, Ill.

National Tube Co., Pittsburgh, Pa.

**Tubing, Zinc—**

Bridgeport Brass Co., Bridgeport, Ct.

Scovill Mfg. Co., Waterbury, Ct.

Waterbury Brass Co., Waterbury, Ct.

**Tub Machinery and Tools—**

Peter Gerlach Co., Cleveland, O.

**Tubs, Bath—**

(See Bathtubs.)

**Tubs, Crockery, Laundry—**

Humphreys Mfg. Co., Mansfield, O.

**Tubs, Factory—**

W. J. Clark Co., Salem, O.

**Tubs, Galvanized—**

Sidney Shepard & Co., Buffalo, N. Y.

**Tubs, Hoisting—**

W. J. Clark Co., Salem, O.

F. H. Evans, Brooklyn, N. Y.

Fairbanks Co., 416 Broome St., New York.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

L. O. Koven & Bro., 50 Cliff St., N. Y.

**Tubs, Wash—**

Richmond Cedar Works, Richmond, Va.

Sidney Shepard & Co., Buffalo, N. Y.

**Tubular or Split Riveters—**

(See Riveters, Hand.)

**Tumbling Mills—**

(See Barrels, Tumbling.)

**Tungsten—**

Geo. G. Blackwell, Sons & Co., Liverpool, Eng.

Hermann Boker & Co., 101-103 Duane St., New York.

**Turbine Water Wheels—**

(See Water Wheels.)

**Tureens, Silver Plated—**

International Silver Co., 9-13 Maiden Lane, New York.

**Turf Edgers—**

(See Edgers, Turf.)

**Turnbuckles—**

American Iron & Steel Mfg. Co., Lebanon, Pa.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Cincinnati Screw & Tap Co., Cincinnati.

Cleveland City Forge & Iron Co., Cleveland, O.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

W. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis.

Merrill Bros., Brooklyn, N. Y.

Republic Iron & Steel Co., Chicago, Ill.

Rhode Island Tool Co., Providence, R. I.

Rockford Bolt Works, Rockford, Ill.

Sargent & Co., 151 Leonard St., N. Y.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Striemy & Foote Co., Newark, N. J.

W. & J. Tiebout, 118 Chambers St., N. Y.

Upson Nut Co., Cleveland, O.

Williamsport Wire Rope Co., Williamsport, Pa.

**Turnbuckle Tapping Machines—**

(See Tapping Machines, Turnbuckle.)

**Turners, Cake—**

Arcade Mfg. Co., Freeport, Ill.

Sargent & Co., 151 Leonard St., N. Y.

Sidney Shepard & Co., Buffalo, N. Y.

Wagner Mfg. Co., Cedar Falls, Ia.

A. C. Williams, Ravenna, O.

**Turners, Paper Calendar Roll—**

Est. of John Dickinson, 64 Nassau St., New York.

Steel Set Diamond Co., 36 Gold St., N. Y.

**Turning and Boring Mills—**

(See Mills, Boring and Turning.)

**Turning and Felloe Webs—**

(See Webs, Turning, Felloe, &c.)

**Turning, Wood, to Order—**

F. B. Estes & Sons, 6-47 John St., N. Y.

Union Hardware Co., Torrington, Ct.

**Turns, Bell—**

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chamber St., New York.

Sargent & Co., 151 Leonard St., N. Y.

**Turns, Cupboard—**

Hardware Supply Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 43-47 Chamber St., New York.

Sargent & Co., 151 Leonard St., N. Y.

Taylor & Boggis Foundry Co., Cleveland, O.

**Turn Tables, Bridge and Railroad—**

American Bridge Co., 100 Broadway, N. Y.

Atlas Car & Mfg. Co., Cleveland, O.

Boston Bridge Works, Boston, Mass.

Canton Foundry & Machine Co., Canton, O.

Thos. Carlin's Sons Co., Allegheny, Pa.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel, 66 Broad St., New York.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

Passaic Steel Co., Paterson, N. J.

Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.

Whiting Foundry Equipment Co., Harvey, Ill.

**Turn Tables, Mine—**

Canton Foundry & Machine Co., Canton, O.

Arthur Koppel, 66-68 Broad St., N. Y.

Northern Engineering Works, Detroit, Mich.

Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.

**Turn Tables, Shop—**

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Byram & Co. Inc., Detroit, Mich.

Canton Foundry & Machine Co., Canton, O.

C. W. Hunt Co., West New Brighton, New York.

Arthur Koppel, 66-68 Broad St., N. Y.

Nazareth Foundry & Machine Co., Nazareth, Pa.

Northern Engineering Works, Detroit, Mich.

Wm. Sellers & Co. (Inc.), 16th and Hamilton Sts., Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.

**Turret Drills, Lathes—**  
(See Drills, Lathes.)

**Tuyere Irons—**  
(See Irons, Tuyere.)

**Twine, Binder—**  
American Mfg. Co., 65 Wall St., N. Y.  
Broderick & Bascom Rope Co., St. Louis, Mo.

Waterbury & Co., 69 South St., N. Y.

**Twine Boxes, Holders—**  
(See Boxes, Holders.)

**Twine, Cotton—**  
Estes & Sons, Fall River, Mass.

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Twine, Flax, Hemp, Jute and Wool—**

Geo. B. Carpenter & Co., 1-5 Fifth Ave., Chicago, Ill.

Emerson P. Turner Mfg. Co., Norwich, Ct.

**Twist Drill Grinding Machines—**

(See Grinders, Drill.)

**Twist Drills—**  
(See Drills, Twist.)

**Type Setting Machines—**

R. H. Brown & Co., New Haven, Ct.

**Typewriters—**

Fox Machine Co., Grand Rapids, Mich.

**Umbrella Stands, &c.—**  
(See Stands, &c.)

**Underwriters' Wire—**  
(See Wires, Electrical.)

**Uniform Buttons—**  
(See Buttons, Uniform.)

**Union Scales—**  
(See Scales, Union.)

**Unions, Forged—**

J. H. Williams & Co., Brooklyn, N. Y.

**Unions, Pipe—**

Crane Co., Chicago, Ill.

E. M. Dart Mfg. Co., Providence, R. I.

Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

Nolte Brass Co., Springfield, O.

Walworth Mfg. Co., Boston, Mass.

**Unloaders, Railroad Ballast—**

A. Leschen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

**MERCHANTS.**

Carlin Machinery & Supply Co., Allegheny, Pa.

**Upholsterers' and Saddlery Hammers—**  
(See Hammers, Saddlery and Upholsterers.)

**Upholsterers' Regulators—**  
(See Regulators, Upholsterers.)

**Upholstery and Curtain Fixtures—**  
(See Curtain and Upholstery Fixtures.)

**Upright Pulleys—**  
(See Pulleys, Upright.)

**Upsetters, Ties—**

Buffalo Forge Co., Buffalo, N. Y.

National Fulton Brass Mfg. Co., Detroit, Mich.

Williams, White & Co., Moline, Ill.

**Upsetting Machines—**

American Machinery Co., Willoughby, O.

**Vacuum Pumps—**  
(See Pumps, Compression and Vacuum.)

**Valleys and Gutters, in Rolls—**

Berger Mfg. Co., Canton, O.

Garry Iron & Steel Co., Cleveland, O.

**Valve Discs, Red Packing—**  
(See Discs, Packing.)

**Valve Floor Stands—**

Chapman Valve Mfg. Co., Indian Orchard, Mass.

**Valves, Air, Water, Gas and Steam—**

American Furnace & Machine Co., Pittsburgh, Pa.

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

American Valve & Meter Co., Cincinnati, O.

Ashton Valve Co., Boston, Mass.

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

W. E. Caldwell Co., Louisville, Ky.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crane Co., Chicago, Ill.

Crosby Steam Gage & Valve Co., Boston.

Dimmick Pipe Co., Birmingham, Ala.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., N. Y.

Hauck Mfg. Co., Cincinnati, O.

Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.

Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Lunkenheimer Company, Cincinnati, O.

McNab & Harlin Mfg. Co., 56 John St., New York.

Nolte Brass Co., Springfield, O.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.

Pleuger & Henger Mfg. Co., St. Louis.

Velte Foundry & Machine Co., Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Valves, Ammonia—**

Chapman Valve Mfg. Co., Boston, Mass.

Fairbanks Co., 416 Broome St., N. Y.

Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.

Kennedy Valve Mfg. Co., 58 Beekman St., New York.

**Valves and Plungers, Boat—**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

**Valves, Armored Pump—**

Power Specialty Co., 126 Liberty St., New York.

**Valves, Balanced—**

Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Fairbanks Co., 416 Broome St., New York.

Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Mason Regulator Co., Boston, Mass.

**Valves, Bicycle—**

Scott Mfg. Co., Waterbury, Ct.

**Valves, Blow Off—**

American Valve & Meter Co., Cincinnati, O.

Ashton Valve Co., Boston, Mass.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crane Co., Chicago, Ill.

Crosby Steam Gage & Valve Co., Boston.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Hauck Mfg. Co., Cincinnati, O.  
 Jenkins Bros., 71 John St., New York.  
 Lunkenheimer Co., Cincinnati, O.  
 Walworth Mfg. Co., Boston, Mass.  
 Wickes Bros., Saginaw, Mich.

**Valves, Check-**  
 American Valve & Meter Co., Cincinnati, O.  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crane Co., Chicago, Ill.  
 Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Jarecki Mfg. Co., Erie, Pa.  
 Jenkins Bros., 71 John St., New York.  
 Kennedy Valve Mfg. Co., 58 Beekman St., New York.  
 Lunkenheimer Company, Cincinnati, O.  
 McNab & Harlin Mfg. Co., 56 John St., New York.  
 Nolte Brass Co., Springfield, O.  
 Walworth Mfg. Co., Boston, Mass.

**Valves, Electric Motor Operated-**  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.

**Valves, Exhaust-**  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.  
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Hauck Mfg. Co., Cincinnati, O.

**Valves, Fire Sprinkler-**  
 Fairbanks Co., 416 Broome St., New York.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Valves, Float-**  
 W. E. Caldwell Co., Louisville, Ky.  
 Fairbanks Co., 416 Broome St., New York.

**Valves, Flush-**  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.

**Valves, Furnace Air-**  
 Velte Foundry & Machine Co., Pittsburgh, Pa.

**Valves, Gasoline Engine Generator-**  
 Lunkenheimer Co., Cincinnati, O.

**Valves, Gate-**  
 American Valve & Meter Co., Cincinnati, O.  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crane Co., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Hauck Mfg. Co., Cincinnati, O.  
 Jenkins Bros., 71 John St., New York.  
 Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Lunkenheimer Co., Cincinnati, O.  
 Pennsylvania Engineering Works, New Castle, Pa.  
 Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.  
 Watson-Stillman Co., 204-210 East 43d St., New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

**Valves, Hydraulic Relief-**  
 Sheffield Car Co., Three Rivers, Mich.

**Valves, Lever-**  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.

Fairbanks Co., 416 Broome St., New York.  
 Jenkins Bros., 71 John St., New York.  
 Lunkenheimer Co., Cincinnati, O.  
 Mason Regulator Co., Boston, Mass.

**Valves, Pump-**  
 (See Well Supplies and Tools)

**Valves, Radiator-**  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crane Co., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Jarecki Mfg. Co., Erie, Pa.  
 Jenkins Bros., 71 John St., New York.  
 Kennedy Valve Mfg. Co., 58 Beekman St., New York.  
 Lunkenheimer Company, Cincinnati, O.  
 Walworth Mfg. Co., Boston, Mass.

**Valves, Reducing-**  
 Bancroft & Co., Drexel Bldg., Philadelphia, Pa.

Crane Co., Chicago, Ill.  
 Julian D'Este Co., Boston, Mass.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Hauck Mfg. Co., Cincinnati, O.  
 Jenkins Bros., 71 John St., N. Y.  
 Mason Regulator Co., Boston, Mass.  
 Walworth Mfg. Co., Boston, Mass.  
 Watson-Stillman Co., 204-210 East 43d St., New York.

**Valves, Relief-**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.

American Valve & Meter Co., Cincinnati, O.  
 Ashton Valve Co., Boston, Mass.  
 Chapman Valve Mfg. Co., Indian Orchard, Mass.

Crane Co., Chicago, Ill.  
 Crosby Steam Gauge & Valve Co., Boston.  
 Julian D'Este Co., Boston, Mass.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Hauck Mfg. Co., Cincinnati, O.

Jarecki Mfg. Co., Erie, Pa.  
 Jenkins Bros., 71 John St., New York.  
 Lunkenheimer Company, Cincinnati, O.  
 Mason Regulator Co., Boston, Mass.

John H. McGowan & Co., Cincinnati, O.  
 McNab & Harlin Mfg. Co., 56 John St., New York.  
 Sheffield Car Co., Three Rivers, Mich.

Walworth Mfg. Co., Boston, Mass.  
 Watson-Stillman Co., 204-210 East 43d St., New York.

Nazareth Foundry & Machine Co., Nazareth, Pa.

**Valves, Rubber-**  
 H. O. Canfield, Bridgeport, Ct.

Crosby Steam Gauge & Valve Co., Boston.  
 Fairbanks Co., 416 Broome St., New York.  
 Jenkins Bros., 71 John St., New York.  
 Whitman & Barnes Mfg. Co., Akron, O.

**Valves, Safety-**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Ashton Valve Co., Boston, Mass.  
 Crane Co., Chicago, Ill.  
 Crosby Steam Gauge & Valve Co., Boston.  
 Fairbanks Co., 416 Broome St., N. Y.  
 Hauck Mfg. Co., Cincinnati, O.  
 Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.  
Kennedy Valve Mfg. Co., 58 Beekman St., New York.  
Lunkenheimer Company, Cincinnati, O.  
McNab & Harlin Mfg. Co., 56 John St., New York.  
Watson-Stillman Co., 204-210 East 43d St., New York.

**Valves, Siemens Gas-**  
Velte Foundry & Machine Co., Pittsburgh, Pa.

**Valves, Snifting-**  
American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
Ashton Valve Co., Boston, Mass.  
Crane Co., Chicago, Ill.  
Fairbanks Co., 416 Broome St., New York.  
Lunkenheimer Company, Cincinnati, O.

**Valve Stems-**  
Crane Co., Chicago, Ill.  
Finished Steel Co., Youngstown, O.  
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.  
J. H. Williams & Co., Brooklyn, N. Y.

**Valves, Vacuum-**  
Fairbanks Co., 416 Broome St., New York.  
Mason Regulator Co., Boston, Mass.

**Valve Wheels, Steam-**  
(See Wheels, Steam Valve.)

**Vanes, Metal-**  
(See Finials and Vanes, Metal.)

**Vanes, Weather-**  
(See Iron and Brass, Ornamental.)

**Vapor Lamps, Gasoline-**  
(See Lamps, Gasoline.)

**Varnish and Paint Removers-**

Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

John Lucas & Co., Race and 4th Sts., Philadelphia, Pa.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

United States Gutta Percha Paint Co., Providence, R. I.

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Varnish Cans-**  
(See Cans, Paint and Varnish.)

**Varnishes, Armature-**  
Standard Paint Co., 199 William St., New York.

**Varnishes, Artists'-**  
Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

**Varnishes, Japans, &c.-**  
Wm. Connors Paint Mfg. Co., Troy, N. Y.

Devoe & Reynolds Co., 176 Randolph St., Chicago, Ill.

Ironsides Co., Columbus, O.

John Lucas & Co., Race and 4th Sts., Philadelphia, Pa.

Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.

United States Gutta Percha Paint Co., Providence, R. I.

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

**Varnishing Machines-**  
Chambers Bros. Co., 52d St., below Lancaster Ave., Philadelphia, Pa.

**Vases, Col.-**  
Sidney Shepard & Co., Buffalo, N. Y.

**Vases, Decorated Metal-**  
Goodwin & Kintz Co., Winsted, Ct.

**Vases, Lawn-**  
S. Cheney & Son, Manlius, N. Y.  
Donovan Wire & Iron Co., Toledo, O.  
Enterprise Foundry & Fence Co., Indianapolis, Ind.

International Steel Post Co., St. Louis.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Fred. J. Meyers Mfg. Co., Hamilton, O.  
Stewart Iron Works, Cincinnati, O.  
Van Dorn Iron Works Co., Cleveland, O.

**Vases, Silver Plated-**  
International Silver Co., 9-13 Maiden Lane, New York.

**Vaults, Fire and Burglar Proof-**

J. B. & J. M. Cornell, 239 11th Ave., New York.

Donovan Wire & Iron Co., Toledo, O.  
Van Dorn Iron Works Co., Cleveland, O.

**Vegetable, Food and Meat Cutters-**

(See Cutters, Food, Meat and Vegetable.)

**Vegetable Boilers, Wire-**  
(See Kitchen Articles, Wire.)

**Vegetable Mashers, Parers, &c.-**

(See Mashers, Parers, &c.)

**Vehicle Wheels-**  
(See Wheels, Vehicle.)

**Veneer Cutters-**  
(See Cutters, Veneer.)

**Veneering Saws-**  
(See Saws, Segment or Veneering.)

**Veneer Sawing Machines-**  
(See Sawing Machines, Veneer.)

**Ventilating and Heating Apparatus-**

(See Heating and Ventilating Apparatus.)

**Ventilating System, Factory Sash Operating-**

G. Drouve Co., Bridgeport, Ct.  
E. A. Ormsby, Melrose, Mass.

**Ventilator Appliances-**  
(See Heating and Ventilating Apparatus.)

**Ventilator Caps, Cord-**  
(See Caps, Cord.)

**Ventilators-**  
(See Registers and Ventilators.)

**Ventilators and Chimney Cans-**

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Buffalo Forge Co., Buffalo, N. Y.

S. Cheney & Son, Manlius, N. Y.

G. Drouve Co., Bridgeport, Ct.

Garry Iron & Steel Co., Cleveland, O.

Globe Ventilator Co., Troy, N. Y.

Hess-Snyder Co., Massillon, O.

Merchant & Co., Inc., Philadelphia, Pa.

Osborn Mfg. Co., Cleveland, O.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Ventilators, Building-**  
Berger Mfg. Co., Canton, O.

Clason Architectural Metal Co., Providence, R. I.

Garry Iron & Steel Co., Cleveland, O.

Globe Ventilator Co., Troy, N. Y.

Howard & Morse, 45 Fulton St., N. Y.

Merchant & Co., Inc., Philadelphia, Pa.

National Sheet Metal Roofing Co., Jersey City, N. J.

**Ventilators, Flue—**

Berger Mfg. Co., Canton, O.  
 Merchant & Co., Inc., Philadelphia, Pa.  
 Stowell Mfg. & Foundry Co., South Milwaukee, Wis.

**Ventilators, Hood—**

Edson Mfg. Co., Boston, Mass.

**Ventilators, Railroad Car**

Globe Ventilator Co., Troy, N. Y.  
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

**Ventilators, Skylight—**

Globe Ventilator Co., Troy, N. Y.

**Vise and Anvil—**

(See Anvil and Vise.)

**Vise Attachments—**

Hollands Mfg. Co., Erie, Pa.  
 Tower & Lyon Co., 95 Chambers St., New York.

**Vise Clamps, Jaws—**

(See Clamps, Jaws.)

**Vise Grips, Pipe—**

Athol Machine Co., Athol, Mass.  
 Hollands Mfg. Co., Erie, Pa.  
 Prentiss Vise Co., 44 Barclay St., N. Y.

**Vise Jaw Caps—**

Hollands Mfg. Co., Erie, Pa.  
 Prentiss Vise Co., 44 Barclay St., N. Y.

**Vises, Bicycle—**

Hollands Mfg. Co., Erie, Pa.  
 Lewis Tool Co., Bridgeport, Ct.  
 Massey Vise Co., Chicago, Ill.

**Vises, Cabinet—**

Barbour-Stockwell Co., Cambridgeport, Mass.  
 Hollands Mfg. Co., Erie, Pa.  
 Massey Vise Co., Chicago, Ill.

**Vises, Hand—**

Tower & Lyon Co., 95 Chambers St., New York.  
 Wyman & Gordon, Worcester, Mass.

**Vises, Carpenters' Wooden—**

R. Bliss Mfg. Co., Pawtucket, R. I.  
 Hollands Mfg. Co., Erie, Pa.

**Vises, Coach Makers'—**

Columbian Hardware Co., Cleveland, O.  
 Hollands Mfg. Co., Erie, Pa.  
 Howard Iron Works, Buffalo, N. Y.

**Vises, Die Sinkers'—**

Chas. Parker Co., Meriden, Ct.  
 Adams Co., Dubuque, Ia.

**Vises, Drill and Anvil—**

Fairbanks Co., 416 Broome St., New York.  
 A. L. Henderer's Sons, Wilmington, Del.  
 Millers Falls Co., 28 Warren St., N. Y.

**Vises, Drill Press—**

Prentiss Vise Co., 44 Barclay St., N. Y.  
 Hollands Mfg. Co., Erie, Pa.  
 Massey Vise Co., Chicago, Ill.

**Vises, Hand—**

Patterson Tool & Supply Co., Dayton, O.  
 Adams Co., Dubuque, Ia.  
 Athol Machine Co., Athol, Mass.

**Vises, Saw—**

Billings & Spencer Co., Hartford, Ct.  
 Braunsdorf-Mueller Co., Elizabeth, N. J.  
 Fairbanks Co., 416 Broome St., New York.

**Vises, Bench—**

John S. Fray & Co., Bridgeport, Ct.  
 Goodell-Pratt Co., Greenfield, Mass.  
 Howard Iron Works, Buffalo, N. Y.

**Vises, Bench—**

Millers Falls Co., 28 Warren St., N. Y.  
 Otis A. Smith, Rockfall, Ct.  
 Utica Drop Forge & Tool Co., Utica, N. Y.

**Vises, Horseshoers'—**

Becker-Brainard Milling Machine Co., Hyde Park, Mass.  
 Blake & Johnson, Waterbury, Ct.

**Vises, Milling Machine and Planer—**

P. F. Burke, Boston, Mass.  
 Columbian Hardware Co., Cleveland, O.  
 Hollands Mfg. Co., Erie, Pa.

**Vises, Milling Machine and Planer—**

Wells Bros. & Co., Greenfield, Mass.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.

**Vises, Milling Machine and Planer—**

Brown & Sharpe Mfg. Co., Providence, R. I.  
 Fairbanks Co., 416 Broome St., New York.

**Vises, Milling Machine and Planer—**

Fox Machine Co., Grand Rapids, Mich.  
 Gould & Eberhardt, Newark, N. J.  
 Hendey Machine Co., Torrington, Ct.

**Vises, Milling Machine and Planer—**

Hollands Mfg. Co., Erie, Pa.  
 Massey Vise Co., Chicago, Ill.  
 Niles-Bement-Pond Co., 136-138 Liberty St., New York.

**Vises, Milling Machine and Planer—**

Pratt & Whitney Co., Hartford, Ct.  
 Adams Co., Dubuque, Ia.  
 Athol Machine Co., Athol, Mass.

**Vises, Milling Machine and Planer—**

Bigall & Keeler Mfg. Co., Edwardsville, Ill.  
 Columbian Hardware Co., Cleveland, O.

**Vises, Milling Machine and Planer—**

Helwig Mfg. Co., St. Paul, Minn.  
 Hollands Mfg. Co., Erie, Pa.  
 Howard Iron Works, Buffalo, N. Y.

**Vises, Milling Machine and Planer—**

Lewis Tool Co., Bridgeport, Ct.  
 Massey Vise Co., Chicago, Ill.  
 Merrill Bros., Brooklyn, N. Y.

**Vises, Milling Machine and Planer—**

Millers Falls Co., 28 Warren St., N. Y.  
 Chas. Parker Co., Meriden, Ct.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

**Vises, Milling Machine and Planer—**

Prentiss Vise Co., 44 Barclay St., N. Y.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Tower & Lyon Co., 95 Chambers St., New York.

**Vises, Milling Machine and Planer—**

Armstrong Mfg. Co., Bridgeport, Ct.  
 Bignall & Keeler Mfg. Co., Edwardsville, Ind.

**Vises, Milling Machine and Planer—**

Butterfield & Co., Derby Line, Vt.  
 Crane Co., Chicago, Ill.  
 Curtis & Curtis Co., Bridgeport, Ct.

**Vises, Milling Machine and Planer—**

Exeter Machine Works, Exeter, N. H.  
 A. L. Henderer's Sons, Wilmington, Del.  
 Hollands Mfg. Co., Erie, Pa.

**Vises, Milling Machine and Planer—**

Howard Iron Works, Buffalo, N. Y.  
 Humphreys Mfg. Co., Mansfield, O.  
 Jarecki Mfg. Co., Erie, Pa.

**Vises, Milling Machine and Planer—**

Lewis Tool Co., Bridgeport, Ct.  
 Massey Vise Co., Chicago, Ill.  
 Chas. Parker Co., Meriden, Ct.

**Vises, Milling Machine and Planer—**

J. E. Porter Co., Ottawa, Ill.  
 Prentiss Vise Co., 44 Barclay St., N. Y.  
 D. Saunders' Sons, Yonkers, N. Y.

**Vises, Milling Machine and Planer—**

Tower & Lyon Co., 95 Chambers St., New York.  
 Walworth Mfg. Co., Boston, Mass.

**Vises, Milling Machine and Planer—**

E. C. Atkins & Co., Indianapolis, Ind.  
 Henry Diston & Sons, Philadelphia, Pa.  
 C. E. Jennings Co., 42 Murray St., N. Y.

**Vises, Milling Machine and Planer—**

John O. Kupferle, St. Louis, Mo.  
 Chas. Parker Co., Meriden, Ct.  
 Sargent & Co., 151 Leonard St., N. Y.

**Vises, Milling Machine and Planer—**

Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
 Simonds Mfg. Co., Fitchburg, Mass.

- Vises, Solid Box—**  
Columbian Hardware Co., Cleveland, O.  
Eagle Anvil Works, Trenton, N. J.  
Tower & Lyon Co., 95 Chambers St., New York.
- Vises, Tubing, Polished—**  
Hollands Mfg. Co., Erie, Pa.
- Vises, Woodworkers'—**  
Athol Machine Co., Athol, Mass.  
Barbour-Stockwell Co., Cambridgeport, Mass.
- Volt Meters—**  
(See Meters, Recording Volt.)
- Wads, Gun—**  
Peters Cartridge Co., Cincinnati, O.  
Union Metallic Cartridge Co., Bridgeport, Ct.
- Waffle Irons—**  
(See Irons, Waffle.)
- Wagon and Carriage Machinery—**  
Williams, White & Co., Moline, Ill.
- Wagon Axles, Chains, &c.—**  
(See Axles, Chains, &c.)
- Wagons, Delivery—**  
Shipman, Eradt & Co., De Kalb, Ill.  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Wagons, Dump—**  
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- MERCHANTS.**  
Contractors' Equipment Co., Betz Bldg., Philadelphia, Pa.
- Wagons, Mill—**  
Jackson Mfg. Co., Harrisburg, Pa.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Wagons, Motor—**  
(See Carriages.)
- Walters, Dumb—**  
Energy Elevator Co., 408 Cherry St., Philadelphia, Pa.
- Walters, Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.
- Walk Scrapers—**  
(See Scrapers, Walk and Street.)
- Wall Scrapers—**  
(See Scrapers.)
- Wands, Calcesthene—**  
Piqua Handle & Mfg. Co., Piqua, O.
- Wardrobe Hooks—**  
(See Hooks, Coat, Hat, &c.)
- Wardrobes, Office and Shop—**  
(See Lockers.)
- Ware, Aluminum—**  
Sidney Shepard & Co., Buffalo, N. Y.
- Ware, Copper—**  
Rome Mfg. Co., Rome, N. Y.
- Ware, Enameled—**  
Avery Stamping Co., Cleveland, O.  
Cleveland Stamping & Tool Co., Cleveland, O.
- Ware, Hollow, Cast Iron Stove—**  
Blacklock Foundry Co., So. Pittsburg, Tenn.
- Ware, Hollow, Silver and Silver Plated—**  
International Silver Co., 9-13 Maiden Lane, New York.
- Ware, Hollow Steel—**  
Avery Stamping Co., Cleveland, O.  
Cheswick Mfg. Co., Cheswick, Pa.  
Cleveland Stamping & Tool Co., Cleveland, O.
- Ware, Tin—**  
(See Tinware.)
- Ware, Wooden—**  
Hill Dryer Co., Worcester, Mass.
- Warm Air Furnaces—**  
(See Furnaces, Warm Air.)
- Warmers, Electric Foot—**  
United Electric Heating Co., Detroit, Mich.
- Warmers, Electric Plate—**  
United Electric Heating Co., Detroit, Mich.
- Warmers, Soapstone Foot—**  
Pike Mfg. Co., Pike, N. H.
- Warm and Yarn—**  
Broderick & Bascom Rope Co., St. Louis, Mo.
- Wash Benches, Stands—**  
(See Benches, Tub and Wringer.)
- Washboard Blanks—**  
Matthiessen & Hegeler Zinc Co., La Salle, Ill.
- Washboard Knives—**  
(See Knives, Machine.)
- Washboards—**  
Lloyd Mfg. Co., Minneapolis, Minn.  
Saginaw Mfg. Co., Saginaw, Mich.
- Washer Cutters—**  
(See Cutters, Washer.)
- Washer Machines—**  
Cleveland Punch & Shear Works Co., Cleveland, O.
- Washers and Disks, Rubber—**  
(See Gaskets and Rings, Rubber.)
- Washers and Street Hydrants—**  
(See Hydrants and Street Washers.)
- Washers, Brass—**  
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Washers, Cast—**  
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Washers, Plate—**  
Bangor & Co., Drexel Bldg., Philadelphia, Pa.



- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
 Blacklock Foundry, So. Pittsburgh, Tenn.  
 S. Cheney & Son, Manlius, N. Y.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 John C. Kuperle, St. Louis, Mo.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Levering Bros., Baltimore, Md.  
 Logan Mfg. Co., Phoenixville, Pa.  
 Pleuger & Henger Mfg. Co., St. Louis, Mo.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rockford Bolt Works, Rockford, Ill.  
 St. Louis Malleable Castings Co., St. Louis, Mo.  
 Stover Mfg. Co., Freeport, Ill.  
 Upon Nut Co., Cleveland, O.  
 Wilson & Smith, Worcester, Mass.
- Washers, Floor—**  
 (See Plates and Washers, Floor.)
- Washers, Lead—**  
 Nicetown Plate Washer Co., Philadelphia, Pa.  
 Wilson and Smith, Worcester, Mass.
- Washers, Leather—**  
 Barnes Mfg. Co., Mansfield, O.  
 J. M. Marston & Co., Boston, Mass.  
 Raymond Mfg. Co., Corry, Pa.
- Washers, Malleable Iron—**  
 City Forge & Iron Works, Dayton, O.  
 St. Louis Malleable Castings Co., St. Louis, Mo.
- Washers, Metallic—**  
 Waterbury Brass Co., Waterbury, Ct.
- Washers, Prop Block—**  
 McKinnon Dash Co., Buffalo, N. Y.
- Washers, Railroad Car—**  
 Osborn Mfg. Co., Cleveland, O.
- Washers, Wrought—**  
 American Iron & Steel Mfg. Co., Lebanon, Pa.  
 American Steel Hoop Co., Pittsburgh, Pa.  
 Avery Stamping Co., Cleveland, O.  
 Cincinnati Screw & Tap Co., Cincinnati, O.  
 W. J. Clark Co., Salem, O.  
 Clark Bros. Bolt Co., Milldale, Ct.  
 Cobb & Drew, Plymouth, Mass.  
 Eastern Bolt & Nut Co., Providence, R. I.  
 Grand Crossing Tack Co., Grand Crossing, Ill.  
 Griffin Mfg. Co., Erie, Pa.  
 Sam'l Hall's Sons, 229-233 W. 10th St., New York.  
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.  
 Jenkins Bros., 71 John St., New York.  
 R. C. Jenkinson & Co., Newark, N. J.  
 M. Lanz & Sons, Pittsburgh, Pa.  
 Lawrence Bros., Sterling, Ill.  
 McKinney Mfg. Co., Allegheny, Pa.  
 Millersburg Fifth Wheel Co., Millersburg, Pa.  
 Milton Mfg. Co., Milton, Pa.  
 New Castle Forge & Bolt Co., New Castle, Pa.  
 Nicetown Plate Washer Co., Philadelphia, Pa.  
 Plymouth Mills, Plymouth, Mass.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rhode Island Tool Co., Providence, R. I.  
 Rockford Bolt Works, Rockford, Ill.  
 Sargent & Co., 131 Leonard St., N. Y.  
 J. H. Sessions & Son, Bristol, Ct.  
 Shelton Co., Derby, Ct.  
 Stanley Works, New Britain, Ct.
- Upon Nut Co., Cleveland, O.  
 Wilson & Smith, Worcester, Mass.  
 Wrought Washer Mfg. Co., Milwaukee, Wis.
- Washing and Separating Machinery, Ore—**  
 Jeffrey Mfg. Co., Columbus, O.  
 J. H. Lingle, Bellefonte, Pa.
- Washing Machinery, Coal—**  
 (See Coal Washing Machinery.)
- Washing Machines—**  
 Boss Washing Machine Co., Cincinnati, O.  
 H. F. Brammer Mfg. Co., Davenport, Ia.  
 Clark, Quien & Morse, Peoria, Ill.  
 Fawkes Mfg. Co., Minneapolis, Minn.  
 Richmond Cedar Works, Richmond, Va.  
 Voss Bros. Mfg. Co., Davenport, Ia.  
 White Lily Washer Co., Davenport, Ia.
- Waste Baskets, Boxes, Cans—**  
 (See Baskets, Boxes, Cans.)
- Waste, Cotton—**  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Geo. B. Carpenter & Co., 15 Fifth Ave., Chicago, Ill.  
 Estes & Sons, Fall River, Mass.  
 A. Leachen & Sons Rope Co., St. Louis, Mo.
- Watches, Timers and Split Times—**  
 Riggs & Bro., 310 Market St., Philadelphia, Pa.
- Watchmen's Clocks—**  
 (See Clocks, Watchmen's.)
- Water Closet Hinges—**  
 (See Hinges, Water Closet Seat.)
- Water Column Safety—**  
 Lunkenheimer Co., Cincinnati, O.
- Water Coolers, Elevators, &c.—**  
 (See Coolers, Elevators, &c.)
- Waterers, Stock—**  
 (See Stock Waterers.)
- Water Pipe, Riveted—**  
 (See Pipe, Riveted Steel.)
- Waterproof Wire—**  
 (See Wires, Electrical.)
- Water Softening and Purifying Process—**  
 Helwig Mfg. Co., St. Paul, Minn.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Water Wheels—**  
 Dubuque Machine Concern, Dubuque, Ia.  
 Humphrey Machine Co., Keene, N. H.  
 Poole Engineering & Machine Co., Baltimore, Md.  
 Craig Ridgway & Son Co., Coatsville, Pa.  
 W. R. Co. 323 N. 23d St., Philadelphia, Pa.  
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Water Works Supplies—**  
 Illinois Malleable Iron Co., 30-32 W. Monroe St., Chicago, Ill.  
 Ingersoll-Sergeant Drill Co., 26 Cortlandt St., New York.  
 McKiernan Drill Co., 120 Liberty St., New York.  
 Charles Millar & Son Co., Utica, N. Y.  
 Pleuger & Henger Mfg. Co., St. Louis, Mo.  
 Riter-Conley Mfg. Co., Pittsburgh, Pa.  
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- Watt Meters, Recording—**  
 (See Meters, Recording Watt.)

- Wax, Floor—**  
Devore & Reynolds Co., 176 Randolph St., Chicago, Ill.
- Weatherproof Wire**  
(See Wires, Electrical.)
- Weaving Machinery, Wire**  
**Mattress—**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Weaving Machines, Rattan—**  
Chas. Lefler & Co., Brooklyn, N. Y.
- Web Girts, Halters—**  
(See Girts, Halters.)
- Webs, Turning, Felloe, &c.—**  
E. C. Atkins & Co., Indianapolis, Ind.  
Henry Disston & Sons, Philadelphia, Pa.  
C. E. Jennings Co., 42 Murray St., N. Y.  
Millers Falls Co., 28 Warren St., N. Y.  
National Saw Co., Newark, N. J.  
Simonds Mfg. Co., Fitchburg, Mass.
- Wedges and Shims, Granite**  
Hawkrider Bros., Boston, Mass.  
Trow & Holden, Barre, Vt.
- Wedges, Axe—**  
Walter W. Woodruff & Sons Co., Mount Carmel, Pa.
- Wedges, Steel—**  
Mathew Lanz & Sons, Pittsburgh, Pa.
- Wedges, Tool Post—**  
Springfield Drop Forging Co., Springfield, Mass.
- Wedges, Wooden—**  
E. R. Estes & Sons, 45-47 John St., N. Y.
- Weeders, Garden—**  
American Fork & Hoe Co., Cleveland, O.  
Arcade Mfg. Co., Freeport, Ill.  
W. J. Clark Co., Salem, O.  
Iowa Farming Tool Co., Ft. Madison, Ia.  
J. E. Porter Co., Ottawa, Ill.  
Sargent & Co., 151 Leonard St., N. Y.  
Smith & Hemenway Co., 296 Broadway, New York.
- Withington & Cooley Mfg. Co., Jackson, Mich.
- Weeding Hooks—**  
(See Hooks, Weeding.)
- Weighing Machines, Automatic, for Granular Materials—**  
Pratt & Whitney Co., Hartford, Ct.
- Weights, Counter Balance Elevator—**  
Levering Bros., Baltimore, Md.  
W. A. Ross & Bro., 11 S. William St., New York.
- Salem Elevator Works, Salem, Mass.
- Weights, Hitching—**  
Blacklock Foundry, So. Pittsburg, Tenn.  
A. Buch's Sons Co., Elizabethtown, Pa.  
S. Cheney & Son, Manlius, N. Y.  
Covert Mfg. Co., West Troy, N. Y.  
Covert's Saddlery Works, Farmer, N. Y.  
John C. Kupferle, St. Louis, Mo.  
Pleuger & Henger Mfg. Co., St. Louis, Mo.
- Weights, Paper—**  
Sargent & Co., 151 Leonard St., N. Y.  
Wrightsville Hardware Co., Wrightsville, Pa.
- Weights, Sash—**  
E. E. Brown & Co., McKean and Meadow Sts., Philadelphia, Pa.  
S. Cheney & Son, Manlius, N. Y.  
John C. Kupferle, St. Louis, Mo.  
Levering Bros., Baltimore, Md.  
W. A. Ross & Bro., 11 S. William St., New York.
- Weights, Test—**  
Chicago Scale Co., 232-236 Jackson Boulevard, Chicago, Ill.  
Fairbanks Co., 418 Broome St., New York.  
Standard Scale & Supply Co., Pittsburgh.
- Welding, Electric—**  
Standard Welding Co., Cleveland, O.
- Welding Iron and Steel, Thermit Process—**  
Goldschmidt Thermit Co., 43 Exchange Pl., New York.
- Welding Machines, Flue—**  
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
- Welding Machines, Tire—**  
Long & Alstatter Co., Hamilton, O.  
Williams, White & Co., Moline, Ill.
- Welding to Order—**  
Mason G. Worth & Co., Real Estate Trust Bldg., Philadelphia, Pa.
- Well Chains, Curbs, &c.—**  
(See Chains, Curbs, &c.)
- Well Machinery**  
A. D. Cook, Lawrenceburg, Ind.  
Dubuque Machine Concern, Dubuque, Ia.  
Flint & Walling Mfg. Co., Kendallville, Ind.
- A. Leschen & Sons Rope Co., St. Louis.  
Struthers, Wells & Co., Warren, Pa.
- Well Supplies and Tools**  
(Points, Cylinders, Valves, Tubular Well Tools, &c.)  
Barnes Mfg. Co., Mansfield, O.  
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- A. D. Cook, Lawrenceburg, Ind.  
Semin Co., Salem, O.  
Dubuque Machine Concern, Dubuque, Ia.  
Stanley G. Flag & Co., Philadelphia, Pa.  
Flint & Walling Mfg. Co., Kendallville, Ind.
- Goulds Mfg. Co., Seneca Falls, N. Y.  
Hess-Snyder Co., Massillon, O.  
Humphreys Mfg. Co., Mansfield, O.  
Illinois Malleable Iron Co., 33-32 W. Monroe St., Chicago, Ill.
- Jarecki Mfg. Co., Erie, Pa.  
Jenkins Bros., 11 John St., New York.
- A. Leschen & Sons Rope Co., St. Louis.  
F. E. Myers & Bro., Ashland, O.  
J. E. Porter Co., Ottawa, Ill.  
Union Mfg. Co., New Britain, Ct.
- Wharf Spikes—**  
(See Spikes, Dock, Wharf, &c.)
- Wheel Molding Machines, Car—**  
(See Molding Machines, Car Wheel.)
- Wheels—**  
(See Axles and Wheels.)
- Wheels, Automobile, Parts for—**  
Crosby Co., Buffalo, N. Y.
- Wheels, Automobile Steering—**  
Federal Mfg. Co., Cleveland, O.
- Wheels, Automobile Sprocket—**  
Federal Mfg. Co., Cleveland, O.
- Wheels, Balance—**  
(See Fly Wheels.)
- Wheels, Ball Bearing—**  
Atlas Car & Mfg. Co., Cleveland, O.  
McCabe Hanger Mfg. Co., 532-542 W. 22d St., New York.
- Wilcox Mfg. Co., Aurora, Ill.

**Wheels, Barrow—**

W. J. Clark Co., Salem, O.  
Fairbanks Co., 414 Broome St., New York.  
Kilbourne & Jacobs Mfg. Co., Columbus, O.  
West Side Foundry Co., Troy, N. Y.

**Wheels, Bronze Trolley—**

W. G. Howell & Co., Bridgeport, Ct.

**Wheels, Car—**

Atlas Car Mfg. Co., Cleveland, O.  
Chattanooga Car & Foundry Co., Chattanooga, Tenn.

Chrome Steel Works, Kent Ave., Keap & Hooper Sts., Brooklyn, N. Y.  
Arthur Koppel, 66-68 Broad St., N. Y.  
Sheffield Car Co., Three Rivers, Mich.

**MERCHANTS.**

Apex Equipment Co., 11 Broadway, N. Y.  
Henry Levin & Co., 26 So. 15th St., Philadelphia, Pa.  
Pierson & Co., 29 Broadway, New York.

**Wheels, Carborundum—**

Carborundum Co., Niagara Falls, N. Y.  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
Pike Mfg. Co., Pike, N. H.

**Wheels, Castor, Soft Rubber**

M. B. Schenck Co., Meriden, Ct.

**Wheels, Castor, Wooden—**

E. B. Estes & Sons, 45-47 John St., N. Y.  
W. B. Hartigan, Collinsville, Ct.

**Wheels, Chilled Car—**

(See Car Wheels, Chilled.)

**Wheels, Corundum—**

Abrasive Material Co., Philadelphia, Pa.  
American Emery Wheel Works, Providence, R. I.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Northampton Emery Wheel Co., Leeds, Mass.

Norton Emery Wheel Co., Worcester, Mass.

Sterling Emery Wheel Mfg. Co., Tiffin, O.  
Vitrified Wheel Co., Westfield, Mass.

**Wheels, Dental—**

Carborundum Co., Niagara Falls, N. Y.  
Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

H. H. Franklin Mfg. Co., Syracuse, N. Y.  
Norton Emery Wheel Co., Worcester, Mass.

Pike Mfg. Co., Pike, N. H.

**Wheels, Emery—**

Abrasive Material Co., Philadelphia, Pa.  
American Emery Wheel Works, Providence, R. I.

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.  
Carborundum Co., Niagara Falls, N. Y.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Diamond Machine Co., Providence, R. I.  
Northampton Emery Wheel Co., Leeds, Mass.

Norton Emery Wheel Co., Worcester, Mass.

Pike Mfg. Co., Pike, N. H.

Safety Emery Wheel Co., Springfield, O.

Springfield Mfg. Co., Bridgeport, Ct.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Vitrified Wheel Co., Westfield, Mass.

**Wheels, Emery Razor—**

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.  
Pike Mfg. Co., Pike, N. H.

**Wheels, Fifth—**

E. D. Clapp Mfg. Co., Auburn, N. Y.  
Richard Eccles Co., Auburn, N. Y.  
Millersburg Fifth Wheel Co., Millersburg, Pa.

Scranton Forging Co., Scranton, Pa.

M. Seward & Son Co., New Haven, Ct.

**Wheels, Grinding, for Sew-**

ing Machines—

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

**Wheels, Measuring, Tire—**

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

**Wheels, Polishing—**

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

F. L. & J. C. Codman, Boston, Mass.

Cutter, Wood & Stevens Co., Boston, Mass.

Diamond Machine Co., Providence, R. I.

Hanson & Van Winkle Co., Newark, N. J.

Niles-Bement-Pond Co., 136-138 Liberty St., New York.

Northampton Emery Wheel Co., Leeds, Mass.

Norton Emery Wheel Co., Worcester, Mass.

Osborn Mfg. Co., Cleveland, O.

Springfield Mfg. Co., Bridgeport, Ct.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Vitrified Wheel Co., Westfield, Mass.

Zucker & Levett & Loeb Co., 525-530 West 25th St., New York.

**Wheels, Propeller—**

Paul S. Reeves & Son, Philadelphia, Pa.

**Wheels, Roller Skate—**

E. B. Estes & Sons, 45-47 John St., N. Y.

W. B. Hartigan, Collinsville, Ct.

**Wheels, Roll Grinding—**

American Emery Wheel Works, Providence, R. I.

Carborundum Co., Niagara Falls, N. Y.

Chicago Wheel & Mfg. Co., 39-45 W. Randolph St., Chicago, Ill.

Vitrified Wheel Co., Westfield, Mass.

**Wheels, Rubber Tired—**

Kilbourne & Jacobs Mfg. Co., Columbus, O.

**Wheels, Self Oiling Car—**

Chrome Steel Works, Brooklyn, N. Y.

**Wheels, Sprocket—**

C. O. Bartlett & Snow Co., Cleveland, O.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

Borden & Selleck Co., 48 Lake St., Chicago, Ill.

Boston Gear Works, Boston, Mass.

Buhl Malleable Co., Detroit, Mich.

Case Mfg. Co., Columbus, O.

H. W. Caldwell & Son, Western Ave. and 17th St., Chicago, Ill.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Filer & Stowell Co., Milwaukee, Wis.

I. & E. Greenwald Co., Cincinnati, O.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

- Nazareth Foundry & Machine Co., Nazareth, Pa.  
 Poole Engineering & Machine Co., Baltimore, Md.  
 Wickes Bros., Saginaw, Mich.
- Wheels, Steam Valve—**  
 E. B. Estes & Sons, 45-47 John St., N. Y.  
 Piqua Handle & Mfg. Co., Piqua, O.  
 Sawyer Tool Mfg. Co., Fitchburg, Mass.
- Wheels, Steel Tired—**  
 Bancroft & Co., Drexel Bldg., Philadelphia, Pa.
- Wheels, Steering, for Vessels—**  
 Barnes Tool Co., New Haven, Ct.
- Wheels, Tracing—**  
 Arosdie Mfg. Co., Freeport, Ill.  
 Billings & Spencer Co., Hartford, Ct.  
 Federal Mfg. Co., Cleveland, O.
- Wheels, Traveling Crane—**  
 Case Mfg. Co., Columbus, O.
- Wheels, Truck—**  
 Atlas Car & Mfg. Co., Cleveland, O.  
 Wm. Bayley & Sons Co., Milwaukee, Wis.
- Hyatt Roller Bearing Co., Harrison, N. J.  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.  
 R. W. Whitehurst Co., Norfolk, Va.
- Wheels, Truck, Roller Bearing for—**  
 Fairbanks Co., 416 Broome St., New York.
- Wheels, Vehicle—**  
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Wheels, Water—**  
 (See Water Wheels.)
- Wheels, Well—**  
 John C. Kuperle, St. Louis, Mo.  
 Peek, Stow & Wilcox Co., 27 Murray St., New York.
- Pleuger & Henger Mfg. Co., St. Louis.  
 Reading Hardware Co., Reading, Pa.  
 Sargent & Co., 151 Leonard St., N. Y.  
 Susquehanna Castings Co., Wrightsville, Pa.
- Wrightsville Hardware Co., Wrightsville, Pa.
- Whip Sockets—**  
 (See Sockets, Whip.)
- Whips, Carpet—**  
 (See Beaters, Clothes, Carpet, &c.)
- Whips, Ox—**  
 Walter A. Zelnicker Supply Co., St. Louis, Mo.
- Whistle Cord Hooks—**  
 (See Hooks, Whistle Cord.)
- Whistles, Alarm—**  
 Crane Co., Chicago, Ill.  
 Lunkenheimer Co., Cincinnati, O.  
 Mossberg Wrench Co., Central Falls, R. I.  
 W. R. Ostrander & Co., 22 Dey St., New York.
- Walworth Mfg. Co., Boston, Mass.
- Whistles, Speaking Tube—**  
 Berger Mfg. Co., Canton, O.  
 W. R. Ostrander & Co., 22 Dey St., N. Y.
- Whistles, Steam—**  
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.  
 Ashton Valve Co., Boston, Mass.  
 Crane Co., Chicago, Ill.  
 Crosby Steam Gauge & Valve Co., Boston.  
 Fairbanks Co., 416 Broome St., New York.  
 Lunkenheimer Co., Cincinnati, O.  
 McNab & Harlin Mfg. Co., 56 John St., New York.
- Walworth Mfg. Co., Boston, Mass.
- Wickes Bros., Saginaw, Mich.  
 Walter A. Zelnicker Supply Co., St. Louis, Mo.
- White Brass—**  
 (See Brass, White.)
- White Lead—**  
 Wm. Connors Paint Mfg. Co., Troy, N. Y.  
 Devore & Reynolds Co., 176 Randolph St., Chicago, Ill.  
 John Lucas & Co., Race and 4th Sts., Philadelphia, Pa.  
 Eugene E. Nice, 272-274 S. 2d St., Philadelphia, Pa.
- White Lead Machinery—**  
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.  
 I. & E. Greenwald Co., Cincinnati, O.  
 Poole Engineering & Machine Co., Baltimore, Md.
- Whitewash Brushes—**  
 (See Brushes, Whitewash, Horse, &c.)
- Whitewashing Machines—**  
 (See Paint and Whitewash Spraying Machines.)
- Wick, Candle—**  
 Estes & Sons, Fall River, Mass.  
 A. Leschen & Sons Rope Co., St. Louis.
- Wickets—**  
 (See Iron and Brass, Ornamental.)
- Winches—**  
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.  
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.  
 Edson Mfg. Co., Boston, Mass.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.
- Winders, Sheet Metal—**  
 Waterbury Machine Co., Waterbury, Ct.
- Winders, Trolley Wire—**  
 Waterbury Machine Co., Waterbury, Ct.
- Winding Machines, Bobbin—**  
 (See Bobbin Winding Machines.)
- Winding, Tubing and Coning, to Order—**  
 Emerson P. Turner Mfg. Co., Norwich, Ct.
- Windlasses—**  
 Thos. Carlin's Sons Co., Allegheny, Pa.  
 Edson Mfg. Co., Boston, Mass.  
 Soule Steam Feed Works, Meridian, Miss.
- MERCHANTS.  
 Browning Engineering Co., Cleveland, O.  
 Carlin Machinery & Supply Co., Allegheny, Pa.
- Jos. F. McCoy Co., 24 Warren St., N. Y.
- Wind Mill Pumps, Regulators, Tanks—**  
 (See Pumps, Regulators, Tanks.)
- Wind Mills—**  
 (See Mills, Wind.)
- Window Caps—**  
 (See Caps, Door and Window Metal.)
- Window Screens—**  
 (See Screens, Window.)
- Windows, Fire Proof—**  
 E. B. Badger & Sons Co., Boston, Mass.  
 Clason Architectural Metal Co., 171 E. 12th St., New York.
- Window Spring Bolts—**  
 (See Bolts, Window Springs.)
- Windows, Reversible—**  
 Phoenix Mfg. Co., Milwaukee, Wis.
- Window Stop Adjusters—**  
 (See Adjusters, Window Stop.)

- Window Ventilating Bolts—**  
(See Bolts, Window Ventilating.)
- Wine Pitchers—**  
(See Pitchers, Silver Plated.)
- Wire, Aluminum—**  
Pittsburgh Reduction Co., Pittsburgh, Pa.  
Scovill Mfg. Co., Waterbury, Ct.
- Wire, Annealed Stone—**  
National Wire Corporation, New Haven, Ct.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire, Awl—**  
Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.  
Pittsburgh Tool Steel Co., Monaca, Pa.
- Wire, Baling—**  
Grand Crossing Tack Co., Grand Crossing, Ill.  
Morgan Spring Co., Worcester, Mass.  
National Wire Corporation, New Haven, Ct.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire, Barbed—**  
Crawfordsville Wire & Nail Co., Crawfordsville, Ind.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
National Wire Corporation, New Haven, Ct.  
New Process Steel & Wire Co., East St. Louis, Ill.  
Pittsburgh Steel Co., Pittsburgh, Pa.
- Wire Basket Handles—**  
(See Handles, Basket, Wire.)
- Wire, Bicycle Spoke—**  
Morgan Spring Co., Worcester, Mass.  
National Wire Corporation, New Haven, Ct.  
Geo. W. Prentiss & Co., Holyoke, Mass.
- Wire, Bolt—**  
Morgan Spring Co., Worcester, Mass.  
National Wire Corporation, New Haven, Ct.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire, Bottling, Book Binder, &c.—**  
National Wire Corporation, New Haven, Ct.  
Geo. W. Prentiss & Co., Holyoke, Mass.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire, Brass and Copper—**  
Ansonia Brass & Copper Co., 99 John St., New York.  
Boston Gear Works, Boston, Mass.
- Wire, Brass Plated—**  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire, Bronze—**  
Chas. H. Besly & Co., 10-12 N. Canal St., Chicago, Ill.  
Bridgeport Brass Co., Bridgeport, Ct.  
Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.  
Waterbury Brass Co., Waterbury, Ct.
- Wire, Broom and Brush—**  
National Wire Corporation, New Haven, Ct.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire Brushes—**  
(See Brushes, Wire.)
- Wire, Card—**  
Geo. W. Prentiss & Co., Holyoke, Mass.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire, Cast Steel—**  
Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.  
Miller & Van Winkle, Brooklyn, N. Y.  
Morgan Spring Co., Worcester, Mass.  
National Wire Corporation, New Haven, Ct.  
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
- Wire, Cast Steel—**  
Geo. W. Prentiss & Co., Holyoke, Mass.  
Abel Rollason & Sons, Birmingham, England.  
Spencer Wire Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.
- Wire Chisels, Coilers, &c.—**  
(See Chisels, Coilers, &c.)
- Wire, Clock Spring—**  
Cary Spring Works, 240-242 W. 29th St., New York.
- Wire Cloth—**  
(See Cloth.)
- Wire Cloth Floors—**  
(See Floors.)
- Wire, Coiled Spiral Spring—**  
International Fence & Fireproofing Co., Columbus, O.
- Wire, Cold Drawn Steel—**  
Abel Rollason & Sons, Birmingham, England.
- Wire, Coppered Steel Spring—**  
Spencer Wire Co., Worcester, Mass.
- Wire, Cord—**  
Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Wire Cutting Machines—**  
(See Cutting Machines, Wire.)
- Wire, Dental—**  
Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.
- Wire Die Reaming Lathes—**  
Waterbury Machine Co., Waterbury, Ct.
- Wire Draw Benches—**  
(See Draw Benches.)
- Wire, Drawn, for Ropes—**  
Abel Rollason & Sons, Birmingham, England.

**Wire Draw Plates—**  
Hobson, Houghton & Co., Ltd., 98 John St., New York.

**Wire, Flat—**  
Cary Spring Works, 240-242 W. 29th St., New York.

Miller & Van Winkle, Brooklyn, N. Y.  
National Wire Corporation, New Haven, Ct.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.  
Spencer Wire Co., Worcester, Mass.  
Washburn Wire Co., Phillipsdale, R. I.  
Wright Wire Co., Worcester, Mass.

**Wire Flattening Mills—**  
Blake & Johnson, Waterbury, Ct.  
Henry Perkins Co., Bridgewater, Mass.  
Standard Machinery Co., Providence, R. I.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

**Wire, Florists'—**  
National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.

**Wire, Galvanized Market—**  
Crawfordsville Wire & Nail Co., Crawfordsville, Ind.  
National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.

**Wire, German Silver—**  
Bridgeport Wire Co., Bridgeport, Ct.  
Seovill Mfg. Co., Waterbury, Ct.

**Wire, Gimpet—**  
Waterbury Brass Co., Waterbury, Ct.  
Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

**Wire Goods, Bright—**  
Blake & Johnson, Waterbury, Ct.  
M. S. Brooks & Sons, Chester, Ct.  
John H. Graham & Co., 113 Chambers St., New York.

E. Jenckes Mfg. Co., Pawtucket, R. I.  
Parker Wire Goods Co., Worcester, Mass.  
Sargent & Co., 181 Leonard St., N. Y.

Spencer Wire Co., Worcester, Mass.  
Western Wire Goods Co., Buffalo, N. Y.  
Wire Goods Co., Worcester, Mass.

**Wire Goods, Mill—**  
M. S. Brooks & Sons, Chester, Ct.  
E. Jenckes Mfg. Co., Pawtucket, R. I.

Parker Wire Goods Co., Worcester, Mass.  
Wire Goods Co., Worcester, Mass.

**Wire Goods, to Order—**  
Blake & Johnson, Waterbury, Ct.  
Glen Mfg. Co., Ellwood City, Pa.

E. Jenckes Mfg. Co., Pawtucket, R. I.  
R. C. Jenkinson & Co., Newark, N. J.  
Parker Wire Goods Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.  
C. T. Williamson Wire Novelty Co., Newark, N. J.

Wire Goods Co., Worcester, Mass.

**Wire, Heddle—**  
Cleveland Wire Spring Co., Cleveland, O.  
National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.  
Spencer Wire Co., Worcester, Mass.

**Wire, Iron and Steel, Market Fence, Stone, &c.**  
Crawfordsville Wire & Nail Co., Crawfordsville, Ind.

Frost Wire Fence Co., Cleveland, O.  
Grand Crossing Tack Co., Grand Crossing, Ill.

International Fence & Fireproofing Co., Columbus, O.

Macomber & Whyte Rope Co., Chicago.  
Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.  
Geo. W. Prentiss & Co., Holyoke, Mass.

Reading Screw Co., Norristown, Pa.  
Spencer Wire Co., Worcester, Mass.  
C. E. & E. P. Townsend, New Brighton, Pa.

Trenton Iron Co., Trenton, N. J.  
Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.  
Wire Goods Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.

**Wire Kitchen Articles—**  
(See Kitchen Articles, Wire.)

**Wire, Knurled—**  
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

**Wire, Lock, Hat, Brush and Curtain—**  
National Wire Corporation, New Haven, Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.  
Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.

**Wire, Mattress—**  
National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.  
Wright Wire Co., Worcester, Mass.

**Wire Mill Plants—**  
Garrett-Cromwell Engineering Co., Cleveland, O.

Morgan Construction Co., Worcester, Mass.  
Hugh L. Thompson, Waterbury, Ct.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.  
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Waterbury Machine Co., Waterbury, Ct.

**Wire, Music—**  
Spring Steel Fence & Wire Co., Anderson, Ind.

Trenton Iron Co., Trenton, N. J.

**Wire, Needle—**  
Hobson, Houghton & Co., Ltd., 98 John St., New York.

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Spring Steel Fence & Wire Co., Anderson, Ind.

**Wire, Nickel—**  
Hermann Boker & Co., 101-103 Duane St., New York.

**Wire, Nickel Plated—**  
Spencer Wire Co., Worcester, Mass.

**Wire, Nail, Nail—**  
National Wire Corporation, New Haven, Ct.  
Wright Wire Co., Worcester, Mass.

**Wire Phosphor Bronze—**  
 Prosper-Bronze Smelting Co., Ltd., 2200  
 Washington Ave., Philadelphia, Pa.  
 Paul S. Reeves & Son, Philadelphia, Pa.

**Wire, Picture—**  
 National Wire Corporation, New Haven,  
 Ct.

Spencer Wire Co., Worcester, Mass.  
 Wire Goods Co., Worcester, Mass.  
 Wright Wire Co., Worcester, Mass.  
 (See also Cord, Wire, Picture.)

**Wire, Pin—**  
 Ansonia Brass & Copper Co., 99 John St.,  
 New York.

Morgan Spring Co., Worcester, Mass.  
 National Wire Corporation, New Haven,  
 Ct.

Pittsburgh Tool Steel Wire Co., Monaca,  
 Pa.

Spencer Wire Co., Worcester, Mass.  
 Wright Wire Co., Worcester, Mass.

**Wire, Platinum—**  
 J. Bishop & Co., Malvern, Pa.

**Wire, Reed—**  
 National Wire Corporation, New Haven,  
 Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.  
 Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Wire Reinforcing Fabrics**  
**for Concrete—**  
 Clinton Wire Cloth Co., Clinton, Mass.

**Wire, Resistance—**  
 National Wire Corporation, New Haven,  
 Ct.

**Wire, Rivet—**  
 Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven,  
 Ct.

Spencer Wire Co., Worcester, Mass.  
 Wright Wire Co., Worcester, Mass.

**Wire Rod Reels—**  
 (See Reels, Wire Rod.)

**Wire Rods—**  
 (See Rods, Wire.)

**Wire, Rope—**  
 George W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.  
 Spring Steel Fence & Wire Co., Anderson,  
 Ind.

**Wire Rope Clamps, Clips,**  
**&c.—**  
 (See Clamps, Clips, &c.)

**Wire, Round Tempered—**  
 Cary Spring Works, 240-242 W. 29th St.,  
 New York.

Miller & Van Winkle, Brooklyn, N. Y.  
 Geo. W. Prentiss & Co., Holyoke, Mass.

Abel Rollason & Sons, Birmingham, Eng-  
 land.

Spring Steel Fence & Wire Co., Anderson,  
 Ind.

**Wires, Bond, Galvanized**  
**Iron—**  
 Crawfordsville Wire & Nail Co., Craw-  
 fordsville, Ind.

**Wire, Screw—**  
 Kidd Bros. & Burgher Steel Wire Co.,  
 McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.  
 National Wire Corporation, New Haven,  
 Ct.

Pittsburgh Tool Steel Wire Co., Monaca,  
 Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.  
 Wright Wire Co., Worcester, Mass.

**Wire, Screw Driver—**  
 Kidd Bros. & Burgher Steel Wire Co.,  
 McKee's Rocks, Pa.

Pittsburgh Tool Steel Wire Co., Monaca,  
 Pa.

**Wires, Electrical (Magnet,**  
**Weatherproof, Office, An-**  
**nunciator, Lamp Cord,**  
**Rubber and Paper Insula-**  
**tion, Lead Covered, Ar-**  
**mored, &c.)—**

Ansonia Brass & Copper Co., 99 John St.,  
 New York.

Bridgeport Brass Co., Bridgeport, Ct.  
 General Electric Co., Schenectady, N. Y.

Hazard Mfg. Co., Wilkes-Barre, Pa.  
 Macomber & Whyte Rope Co., Chicago.

Phosphor Bronze Smelting Co., 2200 Wash-  
 ington Ave., Philadelphia, Pa.

Plume & Atwood Co., Waterbury, Ct.  
 Randolph-Clowes Co., Waterbury, Ct.

Scovill Mfg. Co., Waterbury, Ct.  
 Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.  
 Waterbury Brass Co., Waterbury, Ct.

Wright Wire Co., Worcester, Mass.

**Wire Shapes, to Order—**  
 R. C. Jenkinson & Co., Newark, N. J.

Metal Stamping Co., Niagara Falls, N. Y.  
 Morgan Spring Co., Worcester, Mass.

Pittsburgh Tool Steel Wire Co., Monaca,  
 Pa.

Raymond Mfg. Co., Corry, Pa.  
 Spencer Wire Co., Worcester, Mass.

E. H. Titchener & Co., Binghamton,  
 N. Y.

C. N. Williamson Wire Novelty Co.,  
 Newark, N. J.

**Wire, Soft, Coppered,**  
**Bright and Annealed—**  
 Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven,  
 Ct.

Geo. W. Prentiss & Co., Holyoke, Mass.  
 Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Wire, Special—**  
 Bridgeport Brass Co., Bridgeport, Ct.

Kidd Bros. & Burgher Steel Wire Co.,  
 McKee's Rocks, Pa.

Morgan Spring Co., Worcester, Mass.  
 National Wire Corporation, New Haven,  
 Ct.

Phosphor Bronze Smelting Co., 2200 Wash-  
 ington Ave., Philadelphia, Pa.

Pittsburgh Tool Steel Wire Co., Monaca,  
 Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.  
 Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.  
 Wright Wire Co., Worcester, Mass.

**Wire Splicing Pliers—**  
 (See Pliers, Knob Tying and Splicing.)

**Wire, Spooled—**  
 Ansonia Brass & Copper Co., 99 John St.,  
 New York.

Parker Wire Goods Co., Worcester, Pa.  
 Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.  
 Emerson P. Turner Mfg. Co., Norwich, Ct.

Western Wire Goods Co., Buffalo, N. Y.  
 Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Wire, Spring—**

Cary Spring Works, 240-242 W. 29th St., New York.

Cleveland Wire Spring Co., Cleveland, O.  
Crawfordsville Wire & Nail Co., Crawfordsville, Ind.

Frost Wire Fence Co., Cleveland, O.  
Morgan Spring Co., Worcester, Mass.

National Wire Corporation, New Haven, Ct.

Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.  
Abel Rollason & Sons, Birmingham, England.

Spencer Wire Co., Worcester, Mass.  
Washburn Wire Co., Phillipsdale, B. I.

Wright Wire Co., Worcester, Mass.

**Wire, Steel Covered with Nickel—**

Hermann Boker & Co., 101-103 Duane St., New York.

**Wires, Tempered, Cast Steel—**

Cleveland Wire Spring Co., Cleveland, O.  
Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.  
National Wire Corporation, New Haven, Ct.

Pittsburgh Tool Steel Works Co., Monaca, Pa.

Abel Rollason & Sons, Birmingham, England.

Washburn Wire Co., Phillipsdale, B. I.

Wright Wire Co., Worcester, Mass.

**Wires, Threaded—**

Blake & Johnson, Waterbury, Ct.  
E. C. Jenkinson & Co., Newark, N. J.

Progressive Mfg. Co., Torrington, Ct.  
Spencer Wire Co., Worcester, Mass.

**Wire Stitching Machines—**

R. H. Brown & Co., New Haven, Ct.

**Wire Straightened and Cut—**

Columbia Bridge Co., Pittsburgh, Pa.  
Crawfordsville Wire & Nail Co., Crawfordsville, Ind.

E. C. Jenkinson & Co., Newark, N. J.  
Parker Wire Goods Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

**Wire Straightening and Cutting Machines—**

(See Straightening and Cutting Machines, Wire.)

**Wire Strand, Galvanized—**

Broderick & Bascom Rope Co., St. Louis, Mo.

**Wire, Strand, Guy, Galvanized—**

A. Leschen & Sons Rope Co., St. Louis, Mo.

Macomber & Whyte Rope Co., Chicago.

National Wire Corporation, New Haven, Ct.

Wright Wire Co., Worcester, Mass.

**Wire, Tack—**

National Wire Corporation, New Haven, Ct.

Wright Wire Co., Worcester, Mass.

**Wire, Telephone and Telegraph, Iron—**

Crawfordsville Wire & Nail Co., Crawfordsville, Ind.

**Wire Thrashing Barrels—**

Waterbury Farrel Boudry & Machine Co., Waterbury, Ct.

**Wire, Tinned—**

National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Wire Trays, Paper—**

(See Trays, Wire, Paper.)

**Wire, Umbrella—**

National Wire Corporation, New Haven, Ct.

**Wire, Watch—**

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

**Wire Weaving—**

National Wire Corporation, New Haven, Ct.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

**Wire Window Guards—**

(See Guards, Wire Window.)

**Wire, Wood Bit—**

Kidd Bros. & Burgher Steel Wire Co., McKee's Rocks, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

**Wire Work, to order—**

Blake & Johnson, Waterbury, Ct.

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Donovan Wire & Iron Co., Toledo, O.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

R. C. Jenkinson & Co., Newark, N. J.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Fred J. Meyers Mfg. Co., Hamilton, O.

Spencer Wire Co., Worcester, Mass.

Van Dorn Iron Works Co., Cleveland, O.

C. T. Williamson Wire Novelty Co., Newark, N. J.

Wright Wire Co., Worcester, Mass.

**Wooden Machinery and Tools—**

Peter Gerlach Co., Cleveland, O.

**Wooden Mallets, Scoops, Shovels—**

(See Mallets, Scoops, Shovels.)

**Wooden Specialties—**

Baker, McMillen & Co., Akron, O.

E. B. Estes & Sons, 45-47 John St., N. Y.

John Sommer's Son, Newark, N. J.

**Wooden Ware—**

(See Ware, Wooden.)

**Wood Faucets, &c.—**

(See Faucets.)

**Wood Sawing Machines—**

(See Sawing Machines, Wood.)

**Woods, Ball—**

Baker, McMillen Co., Akron, O.

E. B. Estes & Sons, 45-47 John St., N. Y.

**Woods, Electric—**

(See Electric Woods.)



**Wood Turners' Tools—**

(See Tools, Wood Turners'.)

**Wood Working Machines—**

American Machinery Co., Grand Rapids, Mich.

Colburn Machine Tool Co., Franklin, Pa.  
 Fox Machine Co., Grand Rapids, Mich.  
 Greaves, Klusman & Co., Cincinnati, O.  
 Humphrey Machine Co., Keene, N. H.  
 Lane Mfg. Co., Montpelier, Vt.  
 J. M. Marston & Co., Boston, Mass.  
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.  
 Wickes Bros., Saginaw, Mich.  
 Williams, White & Co., Moline, Ill.  
 S. A. Woods Machine Co., South Boston, Mass.

**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.  
 Carlin Machinery & Supply Co., Allegheny, Pa.  
 Fairbanks Co., 416 Broome St., New York.  
 Hill, Clarke & Co., Boston, Mass.  
 Northern Machinery Co., Minneapolis, Minn.

L. F. Seyfert's Sons, 437-441 N. 3d St., Philadelphia, Pa.  
 Frank Toomer, 127-131 No. 3d St., Philadelphia, Pa.  
 J. B. Vanduyck Co., 8 Dey St., New York.  
 O. C. Wormer Machinery Co., Detroit, Mich.

**Workers, Shutter—**

Mallory Mfg. Co., Flemington, N. J.

**Worm Gearing—**

(See Gearing, Worm.)

**Wreckers, Building—**

Peterson, Seburn &amp; Co., Pittsburgh, Pa.

**Wrench Attachments, Pipe—**

Prentiss Vise Co., 44 Barclay St., N. Y.  
 Star Mfg. Co., Carpentersville, Ill.  
 L. S. Starrett Co., Athol, Mass.  
 Wilcox Mfg. Co., Aurora, Ill.

**Wrenches, Adjustable S—**

Bemis &amp; Call Hardware &amp; Tool Co., Springfield, Mass.

Fairbanks Co., 416 Broome St., New York.  
 Keystone Mfg. Co., Buffalo, N. Y.

**Wrenches, Adjustable S**

Bemis &amp; Call Hdw. &amp; Tool Co., Springfield, Mass.

Crane Co., Chicago, Ill.  
 Fairbanks Co., 416 Broome St., New York.  
 Keystone Mfg. Co., Buffalo, N. Y.

**Wrenches, Bicycle and**

Barnes Tool Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.  
 Crosby Co., Buffalo, N. Y.

John H. Graham & Co., 113 Chambers St., New York.  
 Sam'l Hall's Sons, 229-233 W. 10th St., New York.

C. E. Jennings Co., 42 Murray St., N. Y.  
 Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.  
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Sargent & Co., 151 Leonard St., N. Y.  
 Smith & Egge Mfg. Co., Bridgeport, Ct.

Star Mfg. Co., Carpentersville, Ill.  
 Sturges & Burn Mfg. Co., Chicago, Ill.

Tower & Lyon Co., 95 Chambers St., New York.

Union Mfg. &amp; Specialty Co., Buffalo, N. Y.

J. E. Wakefield, Worcester, Mass.  
 J. H. Williams & Co., Brooklyn, N. Y.

**Wrenches, Brass—**

Braunsdorf-Mueller Co., Elizabeth, N. J.

Fairbanks Co., 416 Broome St., New York.  
 Wiley & Russell Mfg. Co., Greenfield, Mass.

**Wrenches, Brass and Nickel**

**Pipe—**  
 Belden Machine Co., New Haven, Ct.

**Wrenches, Carriage and**

**Wagon—**  
 Goodell Co., Antrim, N. H.

Fairbanks Co., 416 Broome St., New York.  
 Hurwood Mfg. Co., Bridgeport, Ct.

Millers Falls Co., 28 Warren St., N. Y.  
 Tower & Lyon Co., 95 Chambers St., New York.

Wells Bros. Co., Greenfield, Mass.

**Wrenches, Cast Steel—**

American Brake Shoe &amp; Foundry Co., Mahwah, N. J.

**Wrenches, Chain—**

Brock Wrench Mfg. Co., Garwood, N. J.

Fairbanks Co., 416 Broome St., New York.  
 Trimont Mfg. Co., Roxbury, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

**Wrenches, Chuck—**

Billings &amp; Spencer Co., Hartford, Ct.

**Wrenches, Combination—**

Bemis &amp; Call Hardware &amp; Tool Co., Springfield, Mass.

Fairbanks Co., 416 Broome St., New York.  
 Hawkeye Wrench Co., Marshalltown, Ia.

Tower & Lyon Co., 95 Chambers St., New York.  
 J. E. Wakefield, Worcester, Mass.

**Wrenches, Drop Forged—**

Billings & Spencer Co., Hartford, Ct.  
 Brock Wrench Mfg. Co., Garwood, N. J.

B. H. Brown & Co., New Haven, Ct.  
 Cincinnati Screw & Tap Co., Cincinnati, Ohio.

Richard Eccles Co., Auburn, N. Y.  
 Fairbanks Co., 416 Broome St., New York.

Keystone Drop Forge Works, Chester, Pa.  
 Wm. G. Le Count, So. Norwalk, Ct.

Rhode Island Tool Co., Providence, R. I.  
 Springfield Drop Forging Co., Springfield, Mass.

Transue & Williams Co., Alliance, O.  
 Whitman & Barnes Mfg. Co., Akron, O.

J. H. Williams & Co., Brooklyn, N. Y.

**Wrenches, Flange—**

Brock Wrench Mfg. Co., Garwood, N. J.

**Wrenches, Nipple—**

Bevin Bros. Mfg. Co., Easthampton, Ct.

**Wrenches, Pin—**

Billings &amp; Spencer Co., Hartford, Ct.

**Wrenches, Pipe—**

American Drop Forging &amp; Tool Co., Wayland, N. Y.

Armstrong Mfg. Co., Bridgeport, Ct.  
 Barnes Tool Co., New Haven, Ct.

Bemis & Call Hardware & Tool Co., Springfield, Mass.  
 Billings & Spencer Co., Hartford, Ct.

Brock Wrench Mfg. Co., Garwood, N. J.  
 Richard Dudgeon, 24-26 Columbia St., New York.

Fairbanks Co., 416 Broome St., New York.  
 Hawkeye Wrench Co., Marshalltown, Ia.

Hollands Mfg. Co., Erie, Pa.  
Iver Johnson's Arms & Cycle Works,  
Fitchburg, Mass.  
Keystone Mfg. Co., Buffalo, N. Y.  
Kilborn & Bishop Co., New Haven, Ct.  
Frank Moesberg Co., Attleboro, Mass.  
Reading Machine & Tool Co., Reading, Pa.  
D. Saunders & Sons, Yonkers, N. Y.  
Tower & Lyon Co., 95 Chambers St.,  
New York.

Transue & Williams Co., Alliance, O.  
Trimont Mfg. Co., Roxbury, Mass.  
J. E. Wakefield, Worcester, Mass.  
Walworth Mfg. Co., Boston, Mass.  
Whitman & Barnes Mfg. Co., Akron, O.  
J. H. Williams & Co., Brooklyn, N. Y.

**Wrenches, Ratchet—**

Wells Bros. Co., Greenfield, Mass.

**Wrenches, Reamer—**

(See Wrenches, Tap and Reamer.)

**Wrenches, S—**

Billings & Spencer Co., Hartford, Ct.  
Edward S. Hotchkiss, Bridgeport, Ct.

**Wrenches, Screw, Mechan-  
ics' Agricultural, &c.—**

Bemis & Call Hardware & Tool Co.,  
Springfield, Mass.

Billings & Spencer Co., Hartford, Ct.  
Coes Wrench Co., Worcester, Mass.

Fairbanks Co., 416 Broome St., New York.  
Helwig Mfg. Co., St. Paul, Minn.

Frank Moesberg Co., Attleboro, Mass.  
Peck, Stow & Wilcox Co., 27 Murray St.,  
New York.

Russell & Erwin Mfg. Co., 43-47 Cham-  
bers St., New York.

Smith & Edge Mfg. Co., Bridgeport, Ct.  
Springfield Drop Forging Co., Spring-  
field, Mass.

Star Mfg. Co., Carpentersville, Ill.  
Tower & Lyon Co., 95 Chambers St.,  
New York.

Transue & Williams Co., Alliance, O.  
Whitman & Barnes Mfg. Co., Akron, O.

**Wrenches, Socket—**

Fairbanks Co., 416 Broome St., New York.  
Keystone Mfg. Co., Buffalo, N. Y.

Smith & Edge Mfg. Co., Bridgeport, Ct.  
J. H. Williams & Co., Brooklyn, N. Y.

Winter Bros. Co., Wrentham, Mass.

**Wrenches, Spanner—**

Brock Wrench Mfg. Co., Garwood, N. J.

**Wrenches, Spanner, Adjust-  
able—**

Billings & Spencer Co., Hartford, Ct.

**Wrenches, Tap and Ream-  
er—**

Armstrong Mfg. Co., Bridgeport, Ct.  
Chas. H. Bealy & Co., 10-12 No. Canal  
St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.  
Braunsdorf-Mueller Co., Elizabeth, N. J.

Butterfield & Co., Derby Line, Vt.  
S. W. Card Mfg. Co., Mansfield, Mass.

J. M. Carpenter Tap & Die Co., Paw-  
tucket, R. I.

Fairbanks Co., 416 Broome St., New York.  
Keystone Mfg. Co., Buffalo, N. Y.

Morse Twist Drill & Machine Co., New  
Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.  
E. F. Reece Co., Greenfield, Mass.

Sawyer Tool Mfg. Co., Fitchburg, Mass.

Springfield Machine Screw Co., Spring-  
field, Mass.

Standard Tool Co., Cleveland, O.  
Walworth Mfg. Co., Boston, Mass.

Wells Bros. & Co., Greenfield, Mass.  
Wiley & Russell Mfg. Co., Greenfield,  
Mass.

Winter Bros. Co., Wrentham, Mass.

**Wrenches, Tool Post—**  
Billings & Spencer Co., Hartford, Ct.

**Wrenches, Track—**  
Keystone Drop Forge Works, Chester, Pa.

**Wrenches, Trap—**  
Onedia Community, Kenwood, N. Y.

Walworth Mfg. Co., Boston, Mass.

**Wrench Machinery—**  
Gould & Eberhardt, Newark, N. J.

**Wringers, Clothes—**  
National Sweeper Co., Marion, Ind.

North Bros. Mfg. Co., Philadelphia, Pa.

**Wringers, Mop and Buck-  
et, Combined—**

Eagle Coopers Works, Circleville, O.  
Tucker & Dorsey Mfg. Co., Indianapolis,  
Ind.

**Wrist Pin Turning Ma-  
chines—**

Pedrick & Ayer Co., 87 Liberty St., N. Y.

**Wrought Iron Goods.**

**Hooks, Staples, &c.—**  
Griffin Mfg. Co., Erie, Pa.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Ney Mfg. Co., Canton, O.

Stanley Works, New Britain, Ct.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wilcox Mfg. Co., Aurora, Ill.

Wire Goods Co., Worcester, Mass.

**Wrought Steel Butts, Sinks,  
&c.—**

(See Sinks, Butts, &c.)

**Wrought Washers—**  
(See Washers, Wrought.)

**Yacht Hardware—**  
W. & J. Tiebout, 118 Chambers St., N. Y.

**Yard Measure, Steel—**  
Brown & Sharpe Mfg. Co., Providence,  
R. I.

**Yard Sticks—**  
Chapin-Stephens Co., Pine Meadow, Ct.

Upson Nut Co., Cleveland, O.

**Yarn—**  
(See Warps and Yarn.)

**Yarns, Spun and Tarred—**  
Broderick & Bascom Rope Co., St. Louis,  
Mo.

Waterbury & Co., 69 South St., N. Y.

**Yellow Metal Nails—**  
(See Sheathing Nails, &c., Yellow Metal.)

**Yokes, Neck, Trimmed—**  
Cover's Saddlery Works, Farmer, N. Y.

Walter W. Woodruff & Sons Co., Mount  
Carmel, Ct.

**Yokes, Ox—**  
American Fork & Hoe Co., Cleveland, O.

Iowa Farming Tool Co., Ft. Madison, Ia.

**Zinc Battery Plates—**  
(See Battery Plates, Rolled Zinc.)

**Zinc, Dry or in Oil—**

Wm. Connors Paint Mfg. Co., Troy, N. Y.  
 Dovee & Reynolds Co., 176 Randolph St.,  
 Chicago, Ill.

John Lucas & Co., Race and 4th Sts.,  
 Philadelphia, Pa.  
 Eugene E. Nice, 272-274 S. 2d St., Phila-  
 delphia, Pa.

**Zinc for Leclanche Batter-  
ies—**

Matthiessen & Hegeler Zinc Co., La Salle,  
 Ill.

W. R. Ostrander & Co., 22 Dey St., N. Y.

**Zinc, Perforated Sheet—**

Harrington & King Perforating Co., 224  
 N. Union St., Chicago, Ill.  
 Chas. Mundt & Sons, 441-447 Pearl St.,  
 New York.

**Zinc Plates—**

E. Phillips & Sons, So. Hanover, Mass.

**Zinc, Sheet—**

Illinois Zinc Co., Peru, Ill.  
 Matthiessen & Hegeler Zinc Co., La Salle,  
 Ill.

**MERCHANTS.**

Bassett-Presley Co., Cleveland, O.  
 Brown-Wales Co., Boston, Mass.  
 Merchant & Co., Inc., Philadelphia, Pa.  
 Waite, Banlet & Co., Boston, Mass.

**Zinc Sheets, Nickel Plated****and Polished—**

American Nickeloid & Mfg. Co., Peru,  
 Ill.

**Zinc Tubing—**

(See Tubing.)

**R**AILROADS are enormous buyers of the goods represented by *The Iron Age*, and their Purchasing Agents are its careful readers. Such subscriptions are hard to distinguish on our mailing lists, as they are usually entered under individual names. We have, however, identified purchasing officials of companies operating more than seven-eighths of the total railroad mileage of the country, many of the important companies taking several copies. Among them are:

	MILEAGE
ALABAMA CONSOLIDATED COAL & IRON Co.....	7
ALABAMA GREAT SOUTHERN RY.....	334
ALABAMA & VICKSBURG RY.....	143
ALGOMA CENTRAL & HUDSON BAY RY.....	92
ASHLAND COAL & IRON RY. Co.....	22
ATCHISON, TOPEKA & SANTA FE RY. SYSTEM.....	8,733
ATLANTIC CITY R. R.....	166
ATLANTIC COAST LINE Co.....	4,394
AUGUSTA SOUTHERN RY.....	87
BALTIMORE & OHIO R. R. Co.....	3,234
BALTIMORE, CHESAPEAKE & ATLANTIC RY.....	88
BANGOR & AROOSTOOK R. R.....	370
BAY OF QUINTE RY.....	84
BENWOOD & WHEELING CONNECTING RY.....	5
BELLINGHAM BAY & EASTERN R. R.....	6
BERLIN BRANCH R. R.....	7
BESSEMER & LAKE ERIE R. R.....	235
BIG SANDY & CUMBERLAND RY.....	23
BIRMINGHAM SOUTHERN R. R.....	26
BUFFALO, ROCHESTER & PITTSBURGH RY.....	472
CALIFORNIA EASTERN RY.....	30
CAMBERIA & CLEARFIELD RY.....	109
CANADA ATLANTIC RY.....	400
CANADIAN PACIFIC RY. Co.....	8,356
CARSON & COLORADO RY.....	300

	MILEAGE
CENTRAL OF GEORGIA RY.....	1,902
CENTRAL R. R. OF NEW JERSEY.....	680
CENTRAL VERMONT R. R.....	531
CHATEAUGAY R. R.....	83
CHESAPEAKE & OHIO RY.....	1,636
CHICAGO & NORTHWESTERN Co.....	5,922
CHICAGO, BURLINGTON & QUINCY R. R.....	8,725
CHICAGO, LAKE SHORE & EASTERN RY.....	292
CHICAGO, MILWAUKEE & ST. PAUL RY.....	6,578
CHICAGO & ALTON RY.....	903
CHICAGO, ROCK ISLAND & PACIFIC RY.....	13,208
CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA RY.....	1,557
CHIHUAHUA & PACIFIC RY.....	372
CINCINNATI & MUSKEGON VALLEY R. R.....	194
CINCINNATI, HAMILTON & DAYTON RY.....	786
CINCINNATI, LEBANON & NORTHERN RY.....	49
CINCINNATI, NEW ORLEANS & TEXAS PACIFIC RY.....	338
CLARENDON & PITTSFORD R. R.....	13
CLEVELAND, LORAIN & WHEELING RY.....	192
CLEVELAND TERMINAL & VALLEY R. R.....	75
COLORADO & SOUTHERN RY.....	1,121
COLORADO MIDLAND RY.....	336
CUMBERLAND & PENNSYLVANIA R. R.....	54
CUMBERLAND RY. & COAL Co.....	47
CUMBERLAND VALLEY R. R.....	163
DELAWARE & HUDSON Co.....	717
DENVER & RIO GRANDE R. R.....	2,390
DULUTH & IBON RANGE R. R.....	210
DULUTH, MISSABE & NORTHERN RY.....	153
DULUTH, SOUTH SHORE & ATLANTIC RY.....	585
DUNKIRK, ALLEGHENY VALLEY & PITTSBURGH R. R.....	91
ELGIN, JOLIET & EASTERN RY.....	213
ERIE R. R.....	2,318
EVANSVILLE & TERRE HAUTE R. R.....	185
FINDLAY, FORT WAYNE & WESTERN RY.....	81
FLORIDA EAST COAST RY.....	475
FORT WAYNE & DENVER CITY RY.....	454

	MILEAGE
GAINESVILLE, JEFFERSON & SOUTHERN RY.....	65
GEORGE'S CREEK & CUMBERLAND R. R.....	33
GEORGIA NORTHERN RY.....	72
GEORGIA R. R. & BANKING CO.....	307
GEORGIA SOUTHERN & FLORIDA RY.....	285
GRAND CENTRAL STATION.....	6
GRAND TRUNK RY. SYSTEM.....	4,200
GREAT NORTHERN RY. LINE.....	5,849
GULF & SHIP ISLAND R. R.....	253
HOLLINS, HEFLIN & SYLACAUGA R. R.....	28
HANCOCK & CALUMET R. R.....	35
HUDSON VALLEY RY.....	103
ILLINOIS CENTRAL R. R.....	4,283
INDIANA, ILLINOIS & IOWA R. R.....	295
JEFFERSON COAL & RY. CO.....	99
KANAWHA & MICHIGAN RY.....	184
KANSAS CITY SOUTHERN RY.....	833
LAKE CHAMPLAIN & MORIAH R. R.....	8
LAKE ERIE & WESTERN R. R.....	887
LAKE SHORE & MICHIGAN SOUTHERN RY.....	1,411
LEHIGH & HUDSON RIVER RY.....	90
LEHIGH VALLEY R. R.....	1,400
LONG ISLAND R. R.....	393
LOUISVILLE & ARKANSAS R. R.....	148
LOUISVILLE & NASHVILLE R. R.....	5,530
LOUISVILLE, HENDERSON & ST. LOUIS RY.....	186
MAINE CENTRAL R. R.....	816
MASONTOWN & NEW SALEM R. R.....	10
MEXICAN CENTRAL RY. CO.....	2,915
MICHIGAN CENTRAL R. R.....	1,653
MINERAL RANGE R. R.....	143
MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE RY.....	1,431
MISSOURI, KANSAS & TEXAS RY. SYSTEM.....	2,555
MOBILE & BAY SHORE RY.....	38
MOBILE & OHIO R. R.....	876
MONTANA CENTRAL RY.....	262
MONTE CRISTO RY.....	62

	MILEAGE
MONTGOMERY R. R.....	18
MONTREAL & ATLANTIC RY.....	212
NASHVILLE, CHATTANOOGA & ST. LOUIS RY.....	1,196
NEW ORLEANS & NORTHEASTERN R. R.....	115
NEW YORK CENTRAL & HUDSON RIVER R. R. SYSTEM.....	11,287
NEW YORK, NEW HAVEN & HARTFORD R. R.....	2,038
NEW YORK, ONTARIO & WESTERN RY.....	480
NEW YORK, SUSQUEHANNA & WESTERN R. R.....	238
NORFOLK & WESTERN RY.....	1,685
NORTHERN ALABAMA RY.....	118
NORTHERN PACIFIC RY.....	5,355
OGDENSBURG & LAKE CHAMPLAIN RY.....	118
OHIO & LITTLE KANAWHA R. R.....	72
OHIO RIVER R. R.....	208
PANAMA R. R.....	50
PENNSYLVANIA CO.....	4,945
PENNSYLVANIA R. R. SYSTEM.....	10,556
PEORIA & PEKIN UNION RY.....	18
PERE MARQUETTE R. R.....	1,747
PERKIOMEN R. R.....	50
PHILADELPHIA & READING RY.....	1,003
PHILADELPHIA, NEWTOWN & NEW YORK R. R.....	22
PHILADELPHIA, WILMINGTON & BALTIMORE R. R.....	702
PITTSBURGH & MOON RUN R. R.....	7
PITTSBURGH & WESTERN RY.....	214
PITTSBURGH, SHAWMUT & NORTHERN R. R.....	167
QUEBEC CENTRAL RY.....	219
RICHMOND, FREDERICKSBURG & POTOMAC R. R.....	85
RIO GRANDE & SANTA FE R. R.....	34
RIO GRANDE SOUTHERN R. R.....	180
RUTLAND R. R.....	416
ST. LOUIS & SAN FRANCISCO R. R.....	3,414
ST. JOSEPH & GRAND ISLAND RY.....	313
ST. JOSEPH TERMINAL RY.....	18
ST. LOUIS, KANSAS CITY & COLORADO R. R.....	114
SAN PEDRO, LOS ANGELES & SALT LAKE RY.....	50
SANTA FE, PRESCOTT & PHOENIX RY.....	224

THE FOREIGN CIRCULATION of *The Iron Age* has increased during the past thirty years by a natural, healthy growth, in sympathy with the development of our export trade and the growing interest of foreigners in American manufactures. This journal has long been an important factor in introducing American goods and machinery into foreign markets, and has gained such a standing in international trade that it is regularly taken by a large proportion of the foreign houses interested in the lines it represents. Its regular subscribers may be found in the following places, in many of which its list is very considerable:

AGUAS CALIENTES, MEXICO	BLACKHILL, ENGLAND
ALLISTON, CANADA	BLAINA, WALES
ALMONTE, CANADA	BLENAVON, SOUTH WALES
AMHERST, NOVA SCOTIA	BOCHUM, GERMANY
AMIENS, FRANCE	BOLTON, ENGLAND
AMSTERDAM, HOLLAND	BONANZA, CANADA
ANDOVER, ENGLAND	BONN, GERMANY
ANTWERP, BELGIUM	BOMBAY, INDIA
APEDALE, ENGLAND	BOPPARD, GERMANY
ARNHEIM, HOLLAND	BRADES, ENGLAND
AUCKLAND, NEW ZEALAND	BRANTFORD, CANADA
AUGSBURG, BAVARIA	BREMEN, GERMANY
AURORA, CANADA	BRESLAU, GERMANY
BANFF, CANADA	BRIERLEY HILL, ENGLAND
BANKOK, SIAM	BRIGHOUSE, ENGLAND
BARCELONA, SPAIN	BRISBANE, QUEENSL'D, AUSTRALIA
BARRIE, CANADA	BRISTOL, ENGLAND
BARROW-IN-FURNESS, ENGLAND	BRITON FERRY, ENGLAND
BECCLES, ENGLAND	BROCKVILLE, CANADA
BELFANT, IRELAND	BRUCE MINES, CANADA
BELFATTO, SPANISH HONDURAS	BRUCKHAUSEN, GERMANY
BELLEVILLE, CANADA	BRUNSWICK, VICTORIA, AUSTRALIA
BERGEN, NORWAY	BRUSSELS, BELGIUM
BERLIN, CANADA	BRYMBO, ENGLAND
BERLIN, GERMANY	BUCKAU, GERMANY
BIEL, SWITZERLAND	BUDAPEST, HUNGARY
BILBAO, SPAIN	BUENOS AYRES, ARGENTINE RE-
BIRMINGHAM, ENGLAND	PUBLIC
BLACKBURN, ENGLAND	BUNDABERG, QUEENSLAND



BURRAKUR, INDIA  
 CAERLEON, WALES  
 CALCUTTA, INDIA  
 CALEDONIA, CANADA  
 CAMBUSSLANG, SCOTLAND  
 CAPE TOWN, SOUTH AFRICA  
 CARACAS, VENEZUELA  
 CARCAVELLOS, PORTUGAL  
 CARDIFF, WALES  
 CARLTON IRON WORKS, ENGLAND  
 CARNFORTH, ENGLAND  
 CARRON, SCOTLAND  
 CAVITE, PHILIPPINE ISLANDS  
 CHARLEROI, BELGIUM  
 CHARLOTTENBURG, GERMANY  
 CHARLOTTETOWN, PRINCE ED. ISL.  
 CHATHAM, CANADA  
 CHELMSFORD, ENGLAND  
 CHEMNITZ, GERMANY  
 CHESHIRE, ENGLAND  
 CHICOUTIMA, CANADA  
 CHIHUAHUA, MEXICO  
 CHIKUZEN, JAPAN  
 CHRIST CHURCH, CANADA  
 CHRISTIANIA, NORWAY  
 COATBRIDGE, SCOTLAND  
 COATHAM, REDCAR, ENGLAND  
 COBLENTZ, GERMANY  
 COBOURG, CANADA  
 COCHAR, SCOTLAND  
 COLLINGWOOD, CANADA  
 COLNE, ENGLAND  
 COLOGNE, GERMANY  
 CONSTANTINOPLE, AUSTRIA  
 CONSTANZ, GERMANY  
 COPENHAGEN, DENMARK  
 COPPER CLIFF, CANADA  
 CORK, IRELAND  
 CORNWALL, CANADA  
 COSSIPORE, INDIA  
 COTE ST. PAUL, CANADA  
 CRADLEY HEATH, ENGLAND  
 DAHLBRUCH, GERMANY  
 DALQUIRI, CUBA  
 DAMPREMY, BELGIUM  
 DARLASTON, ENGLAND  
 DARLINGTON, ENGLAND  
 DARMSTADT, GERMANY  
 DARTMOUTH, NOVA SCOTIA

DARWEN, ENGLAND  
 DAWSON, CANADA  
 DEGEFORS, SWEDEN  
 DERRY, ENGLAND  
 DERBYSHIRE, ENGLAND  
 DESERONTO, CANADA  
 DESSAU, GERMANY  
 DIJON, FRANCE  
 DILLINGEN, SAAR, GERMANY  
 DINSBURG, GERMANY  
 DOBRIANSKY SAVOD, RUSSIA  
 DONAWITZ BEI LEOBEN, AUSTRIA  
 DONCASTER, ENGLAND  
 DORNBUSCH, GERMANY  
 DOUGLASTOWN, NEW BRUNSWICK  
 DOWLAIS, ENGLAND  
 DRESDEN, CANADA  
 DRESDEN, GERMANY  
 DUBLIN, IRELAND  
 DUDLEY, ENGLAND  
 DUISBURG, GERMANY  
 DUNDAS, CANADA  
 DUNDEE, SCOTLAND  
 DUNEDIN, NEW ZEALAND  
 DURANGO, MEXICO  
 DURBAN, NATAL, SOUTH AFRICA  
 DURHAM, ENGLAND  
 DURLACH, GERMANY  
 DUSSELDORF, GERMANY  
 DUSSELDORF-OBERBILK, GERMANY  
 EBBW VALE, WALES  
 EBINGEN, GERMANY  
 EDINBURGH, SCOTLAND  
 EDMONTON, CANADA  
 EKATERINBOURG, RUSSIA  
 EKATERINOSLAV, RUSSIA  
 ELBERFELD, GERMANY  
 ENGLEFIELD GREEN, ENGLAND  
 ESSEN, RUHR, GERMANY  
 ESSLINGEN, GERMANY  
 FAGERSTA, SWEDEN  
 FERNIE, BRITISH COLUMBIA  
 FERRIERE LA GRANDE, FRANCE  
 FINLAND, RUSSIA  
 FLORENCE, ITALY  
 FORMOSA, JAPAN  
 FORT ERIE, CANADA  
 FORT STEELE, BRITISH COLUMBIA  
 FRANKFORT-ON-MAIN, GERMANY

FREDERICKTON, NEW BRUNSWICK  
 FREIBERG, AUSTRIA  
 FREIBERG, GERMANY  
 FREIBERG, BELGIUM  
 GALT, CANADA  
 GANANOQUE, CANADA  
 GARTCOSH, SCOTLAND  
 GATESHEAD, ENGLAND  
 GELSENKIRCHEN, GERMANY  
 GENEVA, SWITZERLAND  
 GENOA, ITALY  
 GLACE BAY, CANADA  
 GLANHYD, WALES  
 GLASGOW, SCOTLAND  
 GLENGARNOCK, SCOTLAND  
 GLENLACE, SCOTLAND  
 GLOUCESTER, ENGLAND  
 GODALMING, ENGLAND  
 GODEFRICH, CANADA  
 GRANEROS, CHILI  
 GRANGETOWN, ENGLAND  
 GRAVENHAGA, HOLLAND  
 GRAZ, AUSTRIA  
 GUADALAJARA, MEXICO  
 GUAYAQUIL, ECUADOR  
 GUAYAQUIL, ECUADOR  
 GUELPH, CANADA  
 GUTERSLOH, GERMANY  
 GYSINGE, SWEDEN  
 HAFVEROSUND, SWEDEN  
 HAGFORS, SWEDEN  
 HALE, ENGLAND  
 HALBERGERHUETTE B. BRERACH,  
 GERMANY  
 HALIFAX, NOVA SCOTIA  
 HAMBURG, GERMANY  
 HAMILTON, CANADA  
 HAMM, GERMANY  
 HANDAU, CHINA  
 HAYANA, CUBA  
 HAYANGE, GERMANY  
 HEATON, ENGLAND  
 HECKMONDWIKE, ENGLAND  
 HEMER, GERMANY  
 HERSTAL, LIEGE, BELGIUM  
 HILO, HAWAII ISLANDS  
 HOFORS, SWEDEN  
 HOHNENLIMBURGIN, GERMANY  
 HONG KONG, CHINA  
 HONOLULU, SANDWICH ISLANDS  
 HORNDAL, SWEDEN  
 HUNSLET, LEEDS, ENGLAND  
 HYDE, ENGLAND  
 IBROX, SCOTLAND  
 ILKLEY, ENGLAND  
 ILOILO, PHILIPPINE ISLANDS  
 INGERSOLL, CANADA  
 IPSWICH, ENGLAND  
 ISLE D'ELBE, ITALY  
 ISLEWORTH, ENGLAND  
 JALAPA, MEXICO  
 JOEUF, FRANCE  
 JOHANNESBURG, SOUTH AFRICA  
 JOHNSTONE, SCOTLAND  
 JOURIEVKA, RUSSIA  
 JUDDHAVEN, CANADA  
 KAISERSLAUTERN, GERMANY  
 KALK BEI KOELN, GERMANY  
 KAMLOOPS, BRITISH COLUMBIA  
 KARLSRUHE, GERMANY  
 KAZARMA, LLANELLY, WALES  
 KEALIA KANAI, HAWAII ISLANDS  
 KEIGHLEY, ENGLAND  
 KELLEROWA, RUSSIA  
 KILBOWIE, SCOTLAND  
 KINEAU, SANDWICH ISLANDS  
 KING'S NORTON, ENGLAND  
 KINGSTON, CANADA  
 KIRKALDY, SCOTLAND  
 KLDANO, BOHEMIA  
 KOBE, JAPAN  
 KOEKEBERG, BELGIUM  
 KORTFORS, SWEDEN  
 KRAL VINOHRADCEH, BOHEMIA  
 KREFFELD, GERMANY  
 KYOTO, JAPAN  
 LACHINE LOCKS, CANADA  
 LACOMBE, CANADA  
 LA LOUVIERE, BELGIUM  
 LANCASTER, ENGLAND  
 LANDORE, WALES  
 LAUCHHAMMER, GERMANY  
 LAUSANNE, SWITZERLAND  
 LEAMINGTON, ENGLAND  
 LECCO, ITALY  
 LE CREUSOT, FRANCE  
 LEEDS, ENGLAND  
 LEICESTER, ENGLAND

